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THE DEVELOPMENT OF THE SMALL HOSPITAL LABORATORY*

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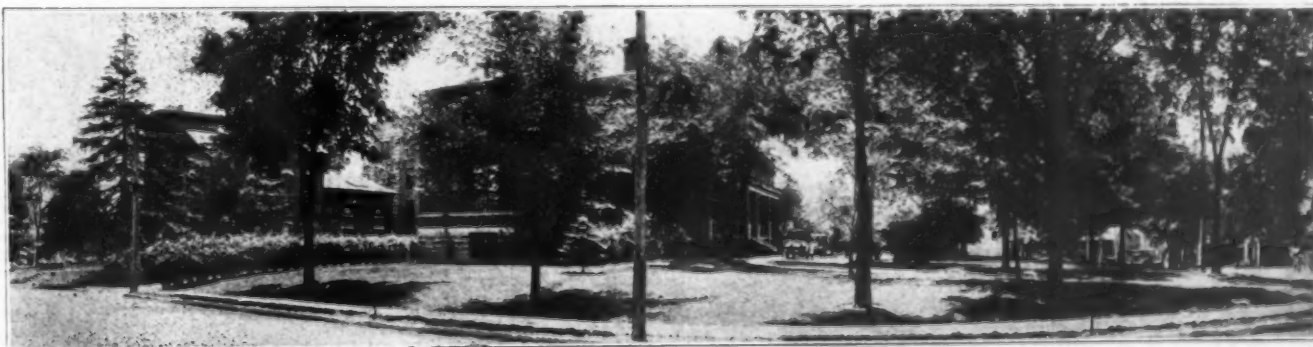
THE successful development of a small hospital laboratory depends upon the support of the directors and physicians interested in the hospital. The directors must have some knowledge of the value of laboratory tests in the treatment of the sick; the physicians must know what tests are indicated; they must keep abreast of the times so that as the sciences of pathology and bacteriology, of serology and immunology advance, they may understand the indications for new tests. Last but not least, it depends upon the type of man directing the laboratory. All three must realize that even the small hospital may be an educational institution. It should aid the physician to acquire greater knowledge and skill in his profession. It should educate the members of the community in the basic facts of medical science and of preventive medicine. The laboratory is the logical center from which this educational work radiates.

The numerous discussions concerning small hospital laboratories which have occurred during the past five years indicate that many of them are

having a hard time to prove their worth and that few of them have begun to attain their full usefulness. Our laboratory at Finley Hospital had a rather stormy beginning and had it not been for the leadership of one man, a physician of strong character with a keen knowledge of the value of the laboratory and with persistence and generosity, we would not today have accomplished what we have. Our laboratory has been far more successful than was anticipated by most of the hospital authorities. As we feel that every small hospital can do what has been done here, it seems worth while to publish the report of our laboratory for the first eighteen months under the present director, as well as to point out some of the methods by which the work was increased.

Finley Hospital is a general hospital of 106 beds in Dubuque, Iowa, a city of 40,000, where there is another similar hospital and a tuberculosis sanatorium. Patients come to the hospital from the surrounding towns within a radius of twenty-five miles so that we serve a population of about 75,000 people. Last year 1,552 patients were treated in the hospital, sixty-six deaths recorded, and approximately one-third of the work

*This is the first half of Dr. McNamara's article on the development of the Finley Hospital laboratory. The concluding installment will appear in the October issue.



Finley Hospital, Dubuque, Iowa.

was of a charitable nature. The staff is open and all patients are treated by their own physicians. Two-thirds of the work is surgical and obstetrical. In addition to the pathologist there is a full time roentgenologist on duty in the hospital. We believe it is unusual for hospitals of this size to have especially trained physicians in charge of each of these departments, but otherwise the hospital is similar to most 100-bed hospitals.

The report of the laboratory work is divided into two parts (1) the public health work (Table I) and (2) the clinical work (Table II). The former work was done for the Dubuque City and County Health Department. Approximately twenty-five per cent of the latter consisted of tests done for patients being treated outside the hospital. The report which follows covers the period of eighteen months from July 1, 1921, to Jan. 1, 1923. For the sake of comparison we have included the report of a hospital in an eastern city the same size as Dubuque. Their report

TABLE I.

Report of Dubuque County and City Health Laboratory.

Communicable Diseases.	Blood examination for
Diphtheria Cultures	malaria
Positive	1
Suspicious	Milk, Cream, Ice Cream and
Negative	Water Examinations
Total	Milk
4,849	Bacteriological
Examination for Vincent's	Chemical
Angina	1,516
Positive	2,207
Suspicious	Total
Negative	2,723
49	Cream
Smears for Gonorrhoea	Chemical
Positive	3
Suspicious	Ice Cream
Negative	Bacteriological
103	Chemical
8	78
198	Total
309	169
Complement Fixation Tests	Water
Positive	Bacteriological
Negative	Chemical
207	374
340	6
547	Total
Sputum Examination for Tu-	380
bercle Bacilli	Miscellaneous Examinations
Positive	Autopsies
Negative	18
159	Tissues
209	3
Examination of Milk for T. B.	Alcohol Determinations ..
Positive	15
Negative	Blood Counts
1	22
2	Blood Cultures
3	3
Widals	Urinalyses
Positive	3
Negative	Bact. Exam. food stuffs ..
7	6
12	Exam. of wine for opium
19	derivatives
15	1
typhoid bacilli	Bact. Exam. of Dishes ..
15	3
	Exam. of chicken for
	phosphorus
	1
	Exam. of clothes for blood
	2
	Animal inoculations ..
	3
	Spinal fluids
	1
	Breast milk
	1
	Hydrocele fluid
	1
	Virulence tests
	2
	Exam. Potato for solanine
	and strychnine
	1
	86
	Grand Total
	9,362

is for a twelve months' period, however. One important difference is that in the former city there is only one hospital instead of three as in Dubuque.

Public Health Laboratory Work

In 1920, Dubuque adopted the city manager

TABLE II.

Report of the Finley Hospital Laboratory of Pathology and Bacteriology.

Type of Examination	Finley (18 months) Hospital	Eastern (12 months) Hospital
Urinalyses		
Routine	3,500	
Miscellaneous	115	3,615
Blood		3,197
Complement fixation tests	713	
White blood counts	988	
Red blood counts	295	
Coagulation time	286	
Haemoglobin	301	
Differential counts	310	
Examination for malaria	14	
Transfusions	21	
Matchings for transfusion	37	
Examination of clots	6	
Haemclastic tests	2	
Blood culture	31	
Sugar tolerance tests	4	
Blood chemical tests	136	
Hamel test	1	
Widals	18	3,163
Spinal Fluids		518
Routine	27	
Wassermann	16	
Culture	5	
Colloidal gold	8	56
Smears		
For gonococcus	77	
Miscellaneous (eye, ear, nose, throat, etc.)	80	157
Cultures		139
Wounds, eye, ear, nose, etc.	140	141
Tissue Examinations		4
Microscopically	378	
Grossly	424	802
Autopsies		13
Gastro-Intestinal Examinations		16
Gastric analyses	65	
Routine feces	71	
Cultures	14	
Miscellaneous	17	167
Sputum		19
T. B. C. and other bacteria	90	
Pneumococcus type determination ..	6	96
Miscellaneous Tests		129
Basal metabolism	32	
Autogenous vaccines	23	
Tuberculin tests	13	
Bacterial proteins prepared	7	
Animal inoculations	8	
Pollen antigen tests	34	
Luetin tests	12	
Dark field examination for spirochetes	4	
Lyon's test on bile	3	
Breast milk	8	
Pleural fluid	21	
Miscellaneous	8	173
Milk		12
Serous fluids		6
Well water		1
Grand total	8,386	4,038

form of government. The city manager, who introduced business-like methods into the city government with notable success, quickly saw the need of a well organized health department. The new director of public health in turn, recognizing the laboratory at his "intelligence office," contracted with us to have the work done here. Thus, for the first time in this city, were the forces of preventive medicine united in an efficient attacking unit. While it is too early to pass final judgment, we believe that the benefits of this organization are already apparent. The following table (Table III), showing the number of communicable diseases in this city for the fourteen months before and the twenty-two months after reorganization, is very striking. Some of the decrease is undoubtedly due to the natural course of events but much of the credit is due to the health director's efficient organization.

TABLE III.

Communicable Diseases in Dubuque Compared for the Years 1920, 1921, 1922.

Month	1920	1921	1922
January	98	192	26
February	(368)*	111	16
March	36	70**	27
April	176	55	12
May	293	44	15
June	165	13	9
July	58	6	12
August	38	12	11
September	49	26	12
October	57	58	15
November	76	43	45
December	191	39	104
Total	1605	669	304
	*368		
	1237		

* Total for 1920 does not include 368 cases of influenza reported in February.

** Health Department organized March 1, 1921.

The broad latitude of the public health laboratory work is apparent from the report. It indicates the activity of all those interested in public health — doctors, nurses, teachers etc., in searching out the causes of infectious diseases and in their prevention.

If we accept the amount of laboratory work as an index of the efficiency of the health department, the result of a survey of forty-two similar health units by the U. S. P. H. Service is of interest. Our laboratory made 4,936 examinations during the period investigated, while the next nearest had 1,874. An arrangement similar to ours by which the public health work is done in a hospital is of mutual benefit to the hospital and to the community. It aids the hospital to obtain the services of a trained physician to direct the laboratory. The community, in turn, receives the benefit of the presence of such a man in their laboratory, something which is unusual in communities the size of Dubuque. Another advantage that may be mentioned is accessibility with the resulting increase of speed in reports and the readiness with which a personal conference on some problem may be brought about be-

tween the physician and the director of the laboratory.

Survey of Clinical Work

The report of the clinical work shows first, that a large number of tests have been done and second, that most of the usual tests were included. The average number of tests each month was 466. Very little other comment is necessary. We are proud of what has been accomplished but are cognizant of certain definite lacks. The more obvious of these are (1) the small number of bacteriological tests; (2) the small number of spinal fluid examinations and (3) the small percentage of autopsies. We hope to be able to stimulate a greater interest in those examinations as well as to increase the number of the other examinations in the future.

Comparison with Eastern Hospital

Comparisons are odious although they often

bring out important facts. The two reports show a very striking difference not only in the number of tests but also in their character. Based on the report of the eighteen months' period, we did 5,590 tests in twelve months or 1,552 (38.4%) more tests than the eastern hospital. Seventy-nine per cent of their work consisted of urin-



View of main laboratory, Finley Hospital.

alyses while those tests made up only forty-one and seven tenths per cent of our work. They list eleven different tests while we list forty-five, though some of this difference may be due to the methods of listing. A very notable variation, and one of great importance, is in the number of tissues examined, their number being thirteen and ours 252 microscopic and 282 gross examinations. The laboratory work done in a hospital is an index of the efficiency of the care of the sick in that hospital. Is it not fair therefore to believe that our patients are more thoroughly studied than those of the other hospital? What other conclusion is possible?

In the light of modern knowledge can it be said that a laboratory is fulfilling its function, as regards the welfare of the patients, when seventy-nine per cent of the tests consist of urinalyses,

while white blood counts, sputa and smears make up another twenty per cent? Are the patients of such a hospital getting "a square deal" when only thirteen tissues are examined in a year? Is the medical profession progressive when they do not obtain autopsies? Is a community getting fair treatment when a hospital does not perform post-mortem examinations? The answers to those questions should be clear in the minds of those associated with every hospital. They demand a clearly defined conception of the functions of the modern hospital as a whole as well as of its various departments. Here we are concerned with the functions of the laboratory as related (1) to the hospital trustees and (2) to the medical profession.

Trustees and the Laboratory

The primary function of the laboratory is, of course, to aid the clinician in arriving at a diagnosis in any given case. There is another duty which is of great importance as regards the standard of the work done in the hospital. The trustees are responsible for that standard to the community which their hospital serves. They therefore must have some means of evaluating the work done in the hospital. The analysis of the clinical records, when faithfully carried out, is one of the methods by which the character of the work of the medical and nursing staffs can be judged. Another method by which the medical care can be evaluated is the record of the amount of laboratory work done by different members of the staff. If Dr. Jones has ten examinations made in a month while Dr. Smith has fifty, each having the same number of patients, then it is quite likely that Jones is not giving his patients the same study that Smith is and it is the duty of the trustees to determine why he isn't. If Smith with ten deaths in the hospital, obtains six autopsies while Jones with an equal number of deaths has none, it should be apparent that Jones is not as progressive as Smith. Numerous other examples might be given to illustrate how the laboratory records are an efficient check on the medical care in the hospital. The primary aim of such a check is to improve the care of the sick in the hospital. It should also act as a stimulus to the medical staff to take advantage of the aids to self improvement which are found in every hospital. It is of the utmost importance that every trustee realize that in this manner he can obtain accurate knowledge of the work being done in his hospital. With the facts thus obtained he can do wonders in improving the character of that work which is, after all, one of his most important duties.

An indication of the importance of both the

laboratories of pathology and roentgenology in modern medicine is the criticism by clinicians that they have assumed *too great* an importance. We do not believe that such criticism is quite fair. We should rather believe that the laboratories are only fulfilling their functions while too often the clinician fails to perform his. If the latter takes a careless history of a case and makes a superficial physical examination, the laboratory tests will necessarily assume an exaggerated importance in his mind. A careful clinician, having taken a good history and made a complete physical examination, will desire more laboratory work than a careless one, but he will use it as an aid rather than as a means of making his diagnosis. If new facts are elicited by the laboratory studies (and everyone knows how frequently they are) he will repeat his physical examination in order to correlate these facts with the morbid process going on within the patient's body. Thus the laboratory and x-ray studies become a check and a control on the clinician's bed side observations. To take full advantage of this check it is essential that he have a clear conception of the tests as well as of their reliability under the conditions encountered in his patients. The clinician who does not utilize the pathological and x-ray examinations when they are clearly indicated, is not giving his patient the benefit of modern medical knowledge. In the small hospital communities there are physicians who rarely use the laboratories. One often wonders whether this is due to their stupidity or to their desire to be left unchecked in their diagnoses. In this connection it is worthy of note that in fracture cases they *do* use the x-ray. Isn't it just as logical that they use the x-ray in other conditions such as pulmonary tuberculosis, pneumonia, empyema, and other diseases in order to check their findings on physical examination and the results of their treatment? Can it be that the law courts have brought about the freer use of the x-ray in fracture cases—that the desire to do the greatest good for the patient is not paramount?

The pathologist and roentgenologist should not confine all their activities to their respective laboratories. One of their functions is to act as consultants and to do this they must keep in touch with the clinical aspects of medicine. They should not be expected to make so many tests or take so many x-ray plates as automatons or as technicians simply because they are requested to do so. Under such conditions the patient receives only one man's opinion—the clinician's. When all the facts known are placed before the pathologist or roentgenologist, they, because of their special training will be able to offer suggestions

concerning new tests or x-ray examinations with more intelligence. At times they will actually make the diagnosis but usually they only help the clinician to do so. When the three cooperate the patient will receive the greatest benefit. The small hospitals must bring about such cooperation in order to have their standard of medical care approach that of the larger hospitals, particularly those used for teaching purposes, which usually have well organized groups.

Another duty of the pathologist is to keep the medical profession in touch with the advances in the laboratory sciences—pathology, serology, immunology and bio-chemistry. These sciences are

developing so rapidly that it is practically impossible for the practitioner to keep in touch with all the advances. He therefore must turn to one who devotes his time to those branches. In this connection it is well to point out the necessity of performing many of the newer tests more or less as a routine on various types of patients before their value can be properly judged. Often a new test is tried a few times and discarded as worthless whereas if tried in a large series of cases it would be found to have practical value in certain conditions. This trying out of new procedures is an important duty of every laboratory and is essential for the progress of medical knowledge.

A SMALL VILLAGE HOSPITAL IN CENTRAL AMERICA

By W. C. RUCKER, M.D., BALBOA HEIGHTS, COSTA RICA.

THE highlands of Costa Rica are to the average dweller of the Caribbean tropics what Simla is to the Anglo-Indian—a chance for him who has missed too many boats to get into the cool, to relax, and be refreshed. Rising rapidly from the humid heat of the sea-coast, one finds himself within a few hours, at an altitude of 5,000 feet, in a bracing atmosphere with a tang not unlike that of California. A fertile country where all the fruits and vegetables of the temperate and tropical zones are produced in profusion, where meat, milk and eggs are plentiful, where exquisite flowers flourish, the only remaining spot in the world where things are relatively cheap.

Costa Rica, "the rich coast," is well named, a country where there are no vast fortunes and little absolute poverty, a country with a minimum infusion of negro blood except at the coastal ports, where the descendants of the ancient Quichés and the colonial Spaniards work side by side, securing with comparative ease a living from the rich chocolate-colored volcanic earth which covers the gently sloping mountain sides, the fertile upland plateaus and valleys laid out in checkerboards of many-shaded greens. In one field will be bananas and coffee, in the next, corn, beans and potatoes; in another, cacao from which chocolate is made, fields of tomatoes, peas, yams, plantains, melons and squash, alternate with sugarcane, henequén and pastures, while in the uncultivated

areas grow mahogany, amargo, cedro, roble and many other valuable hard woods.

Cartago Now a Thriving City of 5,000

In the center of all this, at the foot of the volcano Irazu, the "earthquake maker," lies the ancient city of Cartago, the colonial capital, twice destroyed by earthquake and still bearing eloquent witness to the *terremoto* of 1910 when the earth rocked convulsively until the magnificent ill-fated cathedral, twice begun and never completed, and Andrew Carnegie's peace palace, were reduced to chaotic cairns of splintered stone. Out of these ruins has grown a new Cartago where approximately (in Latin countries statistics should always be accepted *mas ó menos*) 5,000 persons live, for the most part in earthquake-proof mud and



General view, Hospital de Cartago, Costa Rica.

wattle houses with sheet-iron roofs, where the golden sunshine beats down on dusty streets, where gaily painted two-wheel ox-carts groan and bare-footed peons ride the tough, little "paso fino" horses for which the province of Cartago is famous.

Even in colonial days this little town had a hospital administered by a nursing sisterhood. If local tradition is to be given credence this was a rather medieval institution but in 1888, it was modernized. It did little, however, except to administer to emergency cases, all others being sent



View of a patio.



One of the rose-decked patios.

to the large hospital of San Juan de Dios in San José, thirteen miles away. The Hospital de Cartago was completely destroyed by the earthquake, but in the era of rebuilding it was one of the first institutions to be recreated, perhaps because of the vivid memory of the suffering during the catastrophe which killed and injured approximately 2,000 persons.

Dr. Peralta—the Hospital Patron

A great force, however, was the personality of a physician, who today, short of canonization, is Cartago's patron saint because of all the heroes which that time of terror and destruction discovered none stands forth more clearly against the background of pain and death than Dr. don Maximiliano Peralta J. By sheer force of character, he raised a new hospital upon the ruins of the old and when he died on January 26, 1922, not Cartago alone, but all Costa Rica, suffered a tremendous loss. Dr. Peralta was born on May 1, 1871, at Cartago where he received a part of his preliminary education at the Jesuits College. From 1885 to 1891 he attended St. Mary's College in the State of Kansas, U. S. A., and in 1896, he was graduated from Jefferson Medical College in Philadelphia. He was the only physician who remained in Cartago throughout the entire period of the earthquake and in his little wooden shack, hastily erected in the middle of the street, he cared for the sick and wounded and inspired confidence in the homeless and bereaved. He was one of the most active workers on the junta de socórrors (aid committee) of which Don Manuel de Jesus Jiménez was the chairman and raised an endowment of C100,000' (\$23,000) for the hospital from among his patients, Donna Ana Cleto de Astorga and Presbytero Piedra contributing largely thereto. During his life, Dr. Peralta spent much of his time and money for the improvement and expansion of this hospital and on his death willed his entire fortune to its endowment fund.

At present, it consists of fifteen one-story buildings occupying an entire square of ground in the center of the town. These are arranged around patios containing beds of glorious flowers, thus admitting plenty of air and sunlight. Those first erected were of wood as a precaution against earthquakes but those now under construction are being built of reinforced concrete.

The wards are simple cottages twenty by forty-five feet, containing a nurses' room and a small room for very sick patients at one end and a lavatory and bathroom at the other. They have ample window-space and are screened throughout. Electricity is used for lighting and heating. All furniture is modern and all plumbing is of good sanitary design. The hospital night-clothes and bedding are of excellent quality. There are 110 beds in all, of which fourteen are in private rooms and ninety-six are in wards, which are equally divided between males and females. Ward patients are treated free of charge. Private room patients, *pensionistas*, pay C6.5 or \$1.50 per day without extra charges of any kind. All food is prepared at a central kitchen where all cooking is done on electric ranges. On the day of visit, which was unannounced, it was exceedingly clean and the food appetizing. The *almuerzo* or noon-day meal consisted of beef-soup, rice, black-beans, new potatoes, boiled beef, bread, fresh unsalted butter, sliced tomatoes, lettuce and several fruits, pineapples, mangoes and oranges. The per capita per day cost of the institution including all charges is C1.80 or \$0.414. The average load of the hospital is fifty-five patients and about 1,000 patients are treated yearly.

Management of the Hospital

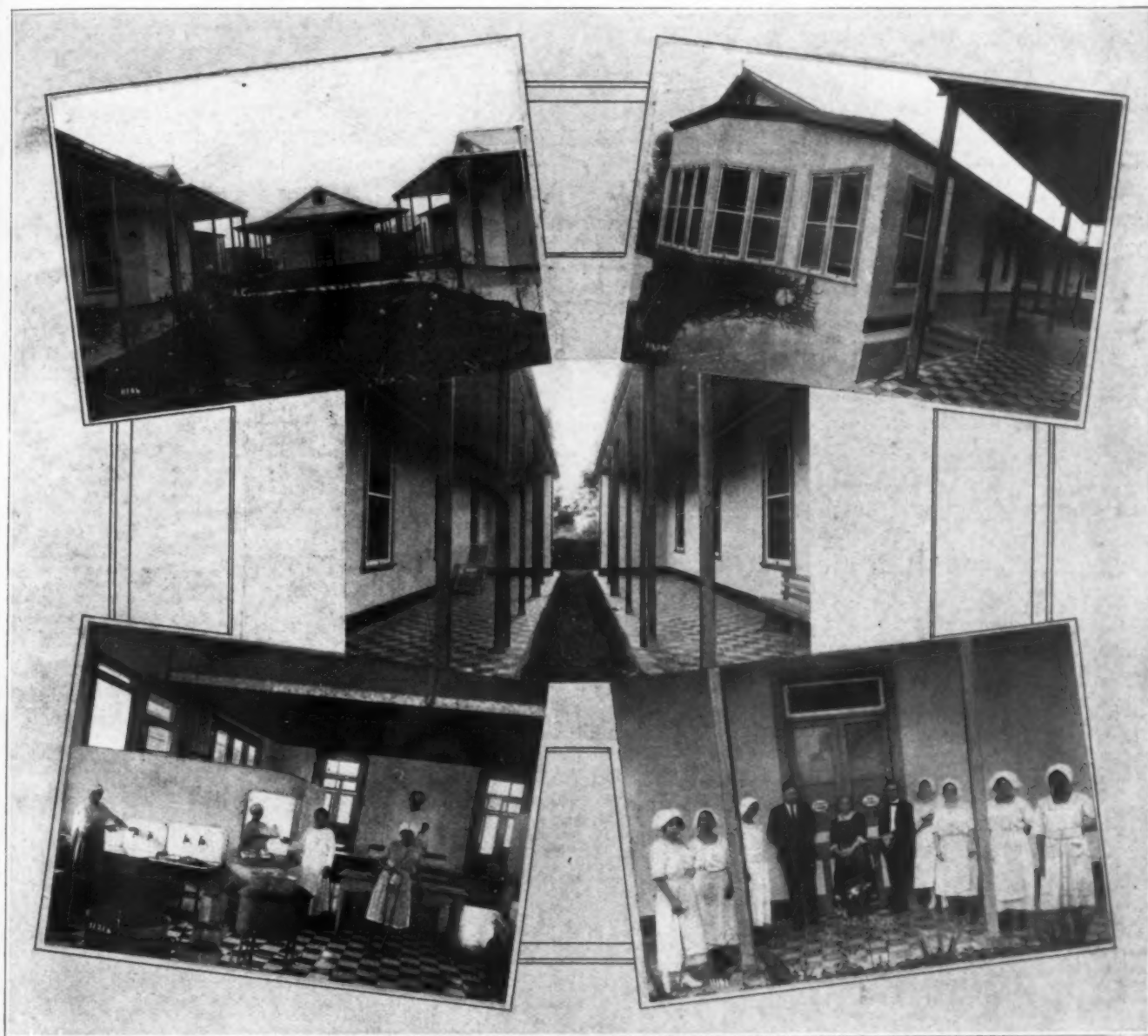
The directing body of this institution is the Provincial Junta de Caridad or charity committee of which Don Nicolas Jiménez is chairman. This committee which consists of a president, secretary-treasurer and five other members selects the director of the hospital and audits the accounts

of the institution. Its annual meeting is held on the first Sunday of January. The hospital is maintained out of the national inheritance tax which is administered by the national Junta de Caridad of which Mr. John M. Keith, a public spirited American, is the very efficient chairman. Beginning May 1, 1922, the subvention granted to the Hospital de Cartago from this fund is C3,000 or \$690 per month. This will be just about enough to meet running expenses leaving repairs and new building to be met out of the endowment and private gifts.

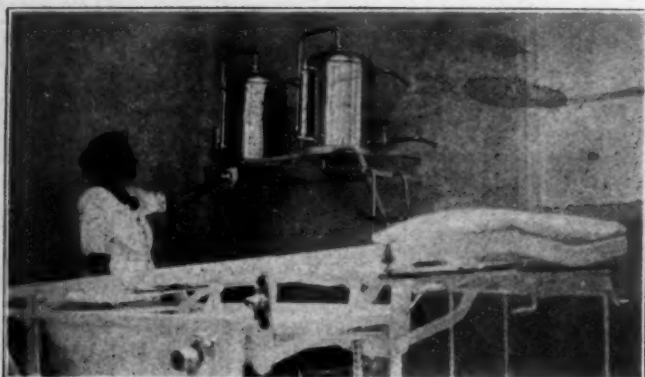
There is no training school for nurses in connection with the institution, in fact there is only one in the public, a small one in San José. Eight practical nurses suffice for the hospital. They receive board, lodging, uniforms and thirty colones or \$6.90 per month. They are neat,

intelligent and apparently do their work well. The institution is temporarily under the direction of Dr. don Vicente Lachner Sandoval, no one yet having been elected to fill the place made vacant by the death of the much beloved former director Dr. Peralta. The head nurse, Donna Francisca Duran de Arias, is a certificated midwife and a very intelligent and efficient woman. There are no physicians in residence, there being only six in the city. None receives a salary for his work in connection with the hospital. All physicians have the use of the hospital and, while it is intended primarily for the town and province of Cartago, any person in Costa Rica may be admitted.

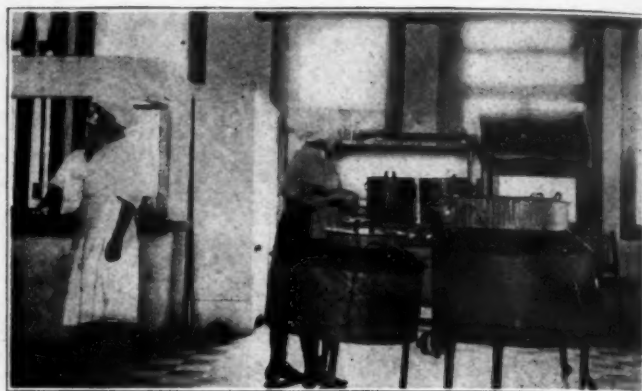
The bulk of the cases treated are medical: tertian malaria, remittent bilious fever, amoebic dysentery, helminthiasis and syphilis predominat-



Upper left, central patio and operating pavilion. Upper right, operating pavilion. Center, sun parlors between wards. Lower left, interior kitchen. Lower right, Dr. Luis G. Geier, Donna de Arias, and Dr. Sandoval with nursing staff.



View of operating room.



Interior kitchen showing electric ranges.

ing. In looking over the well kept case histories, the visitor cannot but be struck with the fact that practically all cases, regardless of the cause of admission, are infested with hookworm, strongyloides, lumbricoides or trichocephalus, frequently all four. This is not surprising in a country where the *excusado* is relatively a *rare avis in terrae* and the bulk of the population is unshod. Strangely enough, typhoid fever is infrequent. Pellagra is almost never seen. Smallpox is seldom diagnosed, largely on account of the very rigidly enforced vaccination laws and the fact that when the disease occurs it is usually of the alastrim type. The hospital has, however, an isolation ward of eight beds.

Relatively few surgical cases are treated in this hospital but several fractures, a strangulated hernia, a breast cancer, an appendectomy and an empyema were seen. There was also a badly infected knee, following a machete wound playfully administered at a fiesta in which *ron claros*, a local *acqua fortis* of high British thermal unit content played a leading rôle. There is a good modern operating room in a separate pavilion well fitted out with Swiss furniture as are also the dressing room and the emergency operating room. The instrument room is well planned for a small hospital. Practically all instruments as well as ligature material and surgical supplies are of American manufacture. All sterilizers, auto-claves and such instruments are electrically heated and of Swiss manufacture. There is no x-ray apparatus at present, but provision is made for an adequate outfit in the new two-storied reinforced concrete building now under construction.

Equipped with Modern Facilities

This building will contain in addition to the x-ray room, the administrative office, the pharmacy, the reception room, the admitting office, the resident surgeon's (to be secured) quarters

on the ground floor while the nurses dormitory will be situated in the second story. A modern maternity building to house twenty-five beds is nearly completed. There is an excellent mortuary and necropsy room. There is a small laboratory, used jointly by those physicians having patients in the hospital, for there is no regularly employed bacteriologist. A small library has also been provided.

As a class, we Americans are rather prone to think ourselves much more advanced than our Latin brother who lives in that vast territory south of the Rio Grande and many of us make the mistake of trying to impress him by how much better we do things. An open-minded visit to the Hospital de Cartago will be rather startling to an individual and he will come away, as do many, much impressed by an institution which is far better than many seen in agricultural communities of like size and far greater wealth in the United States.

OFFERS COURSE IN HOSPITAL ADMINISTRATION

A course in hospital administration was offered at Toronto General Hospital from June 4-18, for the first time in the history of the Ontario Hospitals. Sixty-two members were enrolled.

The subjects which were treated in lecture and conference included hospital administration, training school administration, English, principles of speech, and principles of teaching. The superintendents of large and small hospitals and training schools in Toronto collaborated with the University Staff, and as a result, some very inspiring and helpful lectures were given. In addition to the class room work, arrangements were made for visits to many of the Toronto hospitals, to study special departments and to attend certain demonstrations and clinics. Finally, round table conferences were arranged at the hospitals for discussion of special problems in organization and administration.

What a person praises is perhaps a surer standard, even, than what he condemns, of his character, information, and abilities. No wonder, then, that most people are so shy of praising anything.—Hare.

ANALYZING THE HOSPITAL OUTPUT *

By JOHN D. SPELMAN, M.D., SUPERINTENDENT, TOURO INFIRMARY, NEW ORLEANS, LA.

THE relation of the hospital to the community has recently undergone a marked change. The hospital idea has its origin in that innate tenderness that marks all noble souls in whatever land they dwell and in whatever creed they are conceived. The history of its development is indicated by the attitude of the laity in that a comparatively short span of years finds it looked upon first as a place in which to go to die and finally as a place in which to go to get well.

Before the discovery of the bacterial origin of disease was made about fifty years ago, through the invaluable discovery of Louis Pasteur, hospitals, while intended as places of refuge and restoration to health, only too frequently became veritable "pest holes." Today, the modern hospital, built according to latest standards—fire-proof, germproof, located on favorable sites, every bed with its proper allocation of cubage, sunshine and pure air, with modern laboratories containing the latest instruments of precision, a staff of highly trained doctors, nurses and dietitians, has become the principal means of human salvage, for relief of suffering and the reduction of morbidity and mortality.

Hospitals as Public Service Agents

Public welfare demanded that facilities be not afforded for the indigent sick alone but for the wealthy as well, for certainly no home can furnish all the advantages enumerated. Conceived as a charity furnishing bed and board to the patient and an organized assistance to the doctor, it has now come to act as a responsible principal in a public service capacity. The campaign of the American College of Surgeons for the adoption of minimum requirements for hospitals has educated the public to demand of the hospital that it assume equal responsibility with the medical staff group for the character of work performed within its walls. This movement, fostered as it

The concept of the hospital has passed through an evolution in accordance with the progress of the past few centuries. The recent octocentennial celebration of St. Bartholomew's Hospital, London, has recalled the conception of the hospital as an institution for dying indigents as it was in its earlier stages. This concept is a far cry from the prevalent one concerning hospitals of today. As Dr. Spelman has pointed out, we no longer look upon them as places to go to die but rather places to go to get well. As hospitals are extending their services and are developing elaborate facilities for their in- and out-patient departments we are coming to look upon them as agents of community health.

was by a group of doctors has met with very general acceptance by the medical staff group of our hospitals.

A new era has dawned. Membership on the staff no longer is viewed in terms of increased prestige or financial gain but rather in terms of its obligation. The relationship of the hospital and the doctor is a reciprocal one in that the doctor derives benefit proportionate to the service he contributes. An opportunity for broader clinical experience, for the use of the modern and exact facility of diagnosis and treatment that a hospital should afford and above all, the opportunity of coming in contact with the most astute and thorough men of the community naturally found in hospital work carries with it the obligation of contributing to the good name of the hospital by careful diagnosis and effective treatment, by research and teaching as well as wise counsel and loyal support.

There is only one commodity that the public can obtain from a hospital and that commodity is *Service*. Health, human salvage, relief from pain, from disability, from fever and anxiety, and postponement of death—these are the hospital's output and the output of a hospital can be reduced to an analysis sheet exhibiting both quantity and quality production just as surely as can the products of industry.

Clinical Records—a New Development

Adequate and effectual analysis is based on the clinical record. The hospital is the great court before which our social order, our education, and our personal habits are exposed in all the tragedy of our failure, and the staff and the administration as the co-operative managers of the human salvage plant must accept the sacred trust, writing down the records of the lives temporarily entrusted to them. There is no question but that clinical histories are rapidly improving. Our doctors are becoming imbued with the spirit that if it is worth while giving or doing, it is worth while recording so that it will not be done again if it fails or to give proof of successful endeavor if

*Read before section meeting, comprising Arkansas, Louisiana, and Mississippi, of the American College of Surgeons, January 22, 1923.

it proves effectual. The millennium has not yet dawned and we sincerely hope that still more improvement shall be effected in obtaining adequate progress notes. A balance sheet of monthly performance is rapidly gaining favor and the analysis that it reflects tells a story to all who are interested. Indeed, it is evident, if we are to think in terms of restoration to economic efficiency, that we cannot adequately measure the calibre of our service upon discharge.

Recurrence of illness comes to our attention with re-admission to the hospital but lowered efficiency of the patient and family due to an unnecessarily protracted convalescence or the recurrence of illness that does not present itself for re-admission must be recorded if we are to have all the evidence to judge our performance.

Follow-up Should Supplement Service

A practical and workable method of follow-up must be devised to properly measure the degree and permanency of our service. For this purpose, patients fall naturally into two classes: (a) the ward or service case, (b) the private case.

Let us first consider the ward case type. To begin with, the fullest potentiality has not been gained from hospitalization unless the patient has been taught while most receptive to suggestion because of contact with hospital technique, of sanitation, the type of environment most favorable to convalescence and disease prevention as well as the value to the communal health of utilizing hospital and dispensary facilities. The patient's confidence and cooperation are necessary to an understanding of his present illness and means of preventing recurrence. This brings us to the place where we must develop with the patient a plan for his after-care and reinstatement to active life, enlisting his best effort to carry out such a plan. From this point, it is easy to sell the idea of periodic physical inventory to check up on the success of the plan which at least to his idea has been mutually conceived. Many hospitals have adopted the system of having patients return to the ward they formerly occupied for this periodic physical inventory, but such a plan must inevitably involve a degree of disruption of the ward routine at the expense of the care of its occupants at the time.

Hospitals that possess an out-patient department are fortunate in having the machinery for the control of ward cases and certainly, with the exception of emergencies, admissions to the ward should come from the out-patient department. That continuity of service may be assured and the unnecessary duplication of diagnostic proce-

dures prevented, a service-bridge should be established in the form of availability of the clinic history or its brief on the ward while the new admission is being worked up. At the time of discharge, the history of the patient's stay in the hospital together with a brief of post discharge instruction can readily be transmitted to the out-patient department awaiting his return there. Before this brief is placed in its proper folder, the out-patient department should start a follow-up card of the patient, filing it under its proper date.

Review of End Results after Discharge

Each day brings its quota of cases expected to return and those who visit the clinic may have their cards refiled according to the doctor's new directions while those not returning on the date indicated or in a specified period thereafter should have their records reviewed to determine whether they should be followed up by mail or by personal visit or whether the case should be dropped. This decision should invariably be made by the physician in charge. There is no better way of interesting the hospital staff with the out-patient department or adding the inspiration of their presence in this department to the staff of the clinic than by this opportunity to review end-results after discharge, and to this end, each staff department should designate a particular morning of each week on which cases discharged from their respective wards should be instructed to return.

The report of follow-up results should be transmitted monthly to the statistical department of the hospital that the summary of end-results by departments may be incorporated with the general medical analysis report. This analysis must reflect patient's condition in terms such as "cured," "well," "improved," "unimproved," etc., or if possible, in terms of percentage of economic efficiency. It may be necessary to report the percentage of cases returning for physical inventory at first in order to prove the practicability of the system, but the fact must not be lost sight of that this part of the statistics is merely a means to an end, and that end is the opportunity for service to the individual as the need for it arises on the one hand and on the other, the information that will enable us to determine, for instance, just what surgical procedure promises best hope of cure or permanency of relief to those cases discharged as convalescing satisfactorily from gall-bladder operation or even the number of appendicitis cases cured by appendectomy.

We approach the subject of medical follow-up in the private case group with some hesitancy.

Certainly it is a well-known fact that very many medical men have for a long time kept most efficient track of their private cases. In this connection, it may also be remembered that case histories were kept in doctors' offices. If hospitals are to merit their sacred stewardship, it must inevitably come that they assume the responsibility of assisting the doctors in the follow-up of their private cases. A system devised out of the interchange of ideas of the best minds of the medical staff cannot but be superior to the ideas of an individual. Then, too, the value of end-result analyses is in direct proportion to the number of cases analyzed. Success will be dependent on the degree of cooperative effectiveness obtained, keeping in mind that the follow-up secretary is acting as the agent of the physician. The procedure will be that of scheduling follow-up appointments between doctor and patient either at his office or in the hospital or by mailed questionnaires designed to obtain answers to leading questions that will adequately reflect the existence or non-existence of the symptoms complex of the disease for which cure or relief has been attempted. It might even be found possible to chart out graphically the course of a patient on the basis of a curve of his economic efficiency, taking his highest earning power previous to incapacitation at 100 per cent and his hospitalization period as the base line. We may picture this curve going upward with the increasing activity following convalescence with depressions indicating recurrences.

The staff members of Touro Infirmary of New Orleans have definitely committed themselves to the principle of applying the advantage of medical follow-up in the class of private as well as ward cases. A committee has already begun to function toward the development of a suitable system and we are hopeful that the near future will permit us to report our ability to measure our hospital efficiency in its twentieth century interpretation.

ARMY SCHOOL OF NURSING ALUMNAE HOLD SECOND ANNUAL REUNION

The alumnae association of the Army School of Nursing held its second annual reunion July 12-14 in San Francisco at Letterman General Hospital, the western branch of the school. The reunion opened with the capping of the preliminary students by Miss Anna C. Jamme, president of the bureau of examination and registration of nurses in California. She gave a history of the establishment and early days of the Army School of Nursing. Miss Caroline Gray, dean of the school of nursing at Western Reserve University, Cleveland, Ohio, told of the relation which should exist between an alumnae association and its school. She said a well organized, enthusiastic alumnae association was a most valuable asset to a school. First Lt. Ruth I. Taylor, director of the branch of the school at Letterman General Hospital, told of her particular problems which the alumnae might help her solve.

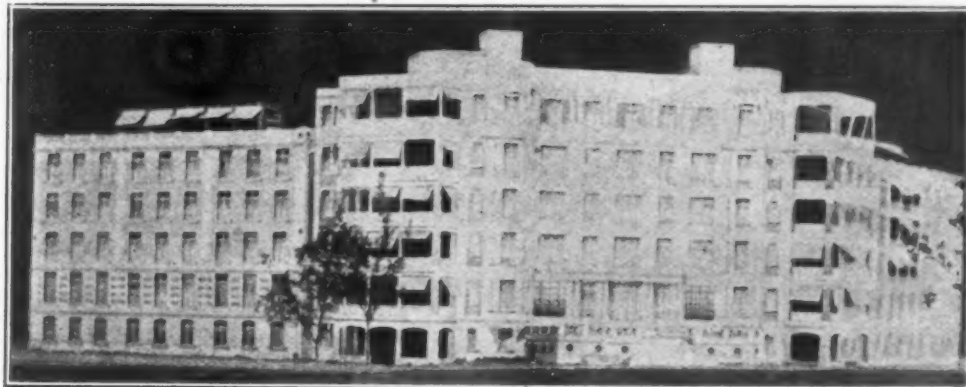
An elaborate program was outlined by the alumnae for next year. A traveling secretary is to be installed who will be the connecting link between the alumnae and the school. She will cooperate with the dean and directors of the school, assist in placing graduates and organize chapters of the alumnae throughout the country. Two students of the school, one from the branch at Letterman General Hospital, San Francisco, and one from the branch at Walter Reed General Hospital, Washington, D. C., are to be guests of the alumnae at the next meeting of the American Nurses' Association in Detroit. The business meetings closed with the election of the following officers: Barbara Price, president; Nell Carrington, vice-president; Florence Henry, secretary and Annie Callender, treasurer.

The visiting members were entertained at Letterman General Hospital by First Lt. Dora Thompson, chief nurse. The entertainment arranged by Catherine Wellington, chairman of the committee, included a tea given by the students at Letterman General Hospital, a dinner at the Fairmont Hotel; theater party at the Alcazar, sight seeing trips about the city and a trip through San Francisco's famous Chinatown.

The next meeting of the alumnae association will be held in Detroit immediately preceding the meeting of the American Nurses' Association.

To measure life learn thou betimes, and know
Toward solid good what leads the nearest way.

—Milton.



Model of the new American Hospital in Paris, France, at which a new corner stone was recently laid for the new Memorial Building. Ambassador Herrick was among the Americans who attended the ceremonies.

P. & A. Photos.

A HOSPITAL ADEQUATELY EQUIPPED FOR THE CARE OF LARYNGEAL DIPHTHERIA

By CHEVALIER JACKSON, M.D., PROFESSOR OF LARYNGOLOGY, JEFFERSON MEDICAL COLLEGE; PROFESSOR OF BRONCHOSCOPY AND ESOPHAGOSCOPY, UNIVERSITY OF PENNSYLVANIA GRADUATE SCHOOL OF MEDICINE, PHILADELPHIA, PA.

IT IS everywhere conceded that prevention of the enormous mortality from the spread of infectious diseases requires that many cases of these diseases shall be taken to an institution maintained by the municipality. This means that under the police powers of the authorities, little children shall be removed from their homes and, sometimes literally as well as figuratively, torn from the arms of their mothers who are thereafter not allowed to see them.

From the viewpoint of simple justice, these parents have the right to expect that their children will have as good care as they could get at home. It is fortunate for the peace of mind of such parents, that they never knew that, in diphtheritic cases the children were, in many cities of the country, taken to municipal hospitals so inadequately equipped that not only was there a needlessly large number of children afflicted with cicatricial laryngeal stenosis, but many of the little sufferers actually died for want of proper facilities for the best work; though, of course, the children were generally better cared for than would have been possible in the home.

Problem of Laryngeal Diphtheria

Laryngeal diphtheria differs essentially from all other diseases of childhood in that it presents a purely mechanical problem. Antitoxin will cure almost every case; but at least a few days are required to effect the cure. Needless to say a child cannot do without air for a few days. To prevent asphyxia there must be supplied mechanical means of piping the air down into the lungs. Furthermore, these mechanical means must be maintained in good order for every minute, night and day. Failure to maintain an open airway down into the lungs of the child for two minutes is certain death. Lesser degrees and other forms of failure of the mechanically maintained patency of the airway may and often do result in pro-

longed disability from chronic laryngeal stenosis.

For the foregoing reasons, laryngeal diphtheria involves a mechanical problem if mortality and disability are to be avoided. To maintain any mechanical factor in a high state of efficiency requires a "plant" in which an adequate equipment and personnel shall at all times be available, and to avoid disaster in dealing with laryngeal diphtheria the means must be *instantly* available.

It is a sad commentary on modern civilization that many cities which maintain the highest possible state of efficiency in the organization and equipment of their fire department are maintaining a municipal hospital that so far as the me-

chanical care of laryngeal diphtheria is concerned is but little better than the "pest house" of half a century ago.

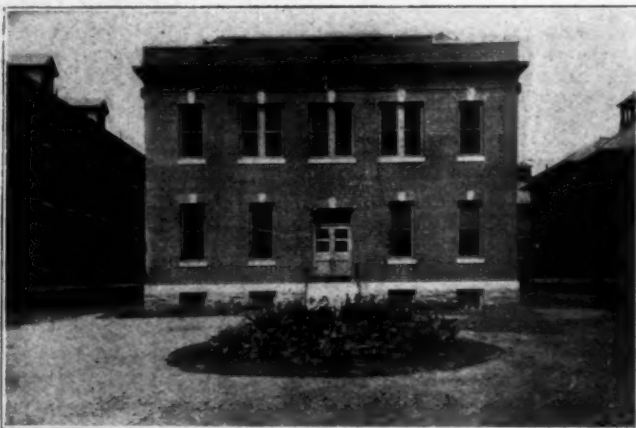
I feel very strongly on this subject because for thirty odd years I have been dealing with all the difficulties of restoring mouth-breathing to children with post-diphtheretic laryngeal stenosis. I do not hesitate to say that

at least seventy-five per cent of these stenoses could have been avoided if the child had had the advantage of care in an institution properly equipped as to facilities, organization and personnel.

Three-fourths of Cases Curable

I do not say that stenosis and mortality are altogether avoidable; but that much of the mortality and at least seventy-five per cent of the laryngeal stenoses that have occurred in many cities could have been avoided by a properly planned institution adequately equipped.

With the foregoing convictions firmly rooted in my mind it afforded me the utmost pleasure to visit the laryngeal diphtheria building just completed by Director C. Lincoln Furbush for the city of Philadelphia. The citizens of that municipality have reason to be proud of the fact that when a child with laryngeal diphtheria is taken



Intubation building, Philadelphia Hospital for Contagious Diseases.

from its home and mother it will arrive within a few minutes in the care of skillful physicians and trained nurses who have instantly available every facility and device that human ingenuity and modern science can supply. To come down to what any layman can understand, the parents can truthfully be told that "not in your own home nor anywhere else in the world can your child have a better chance to get perfectly well."

It is a pleasure to state further, that while every conceivable necessity has been provided for, there is not one item of expenditure that is not a contribution to the saving of human life and suffering.

A description of the institution follows:

The intubation building, one of the units of the Philadelphia Hospital for Contagious Diseases, consists of two stories and a basement, located between the diphtheria department and the administration building. It is constructed of brick with Indiana sandstone trimmings, and is simple and dignified in appearance.

The upper floor devoted to the care of acute cases of laryngeal diphtheria is completely isolated from the lower or first floor in which chronic intubation cases are treated. There is no means of direct communication between them.

The entrance to the second floor is from the main open corridor or bridge on a level with the diphtheria wards. A housemaids' metal closet, watertight but open to the air, is on the cross bridge immediately to the side of the main door-

way on the rear of the structure. On entering the corridor there are quarters for the resident physician on the right. On the left is a dressing room for nurses.

Next on the right is a modern and fully equipped diet kitchen with electric stoves and refrigerators. Every facility is provided for efficient sanitation. Opposite this are closets for linens and gowns. At the end of the corridor is the ward, a large spacious room arranged with a series of cubicles of steel wainscoting and plate glass partitions. These cubicles are on the east and west sides of the ward and in the center. They accommodate a total of thirty patients. One cubicle is designed as an operating room and equipped with sterilizing apparatus and other appliances for the intubation of acute cases. Each cubicle is equipped with hooks for gowns used by the doctor and nurse when entering or leaving

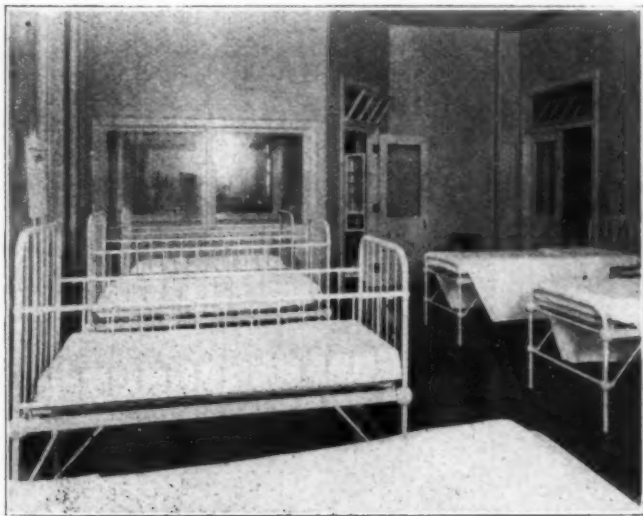
that particular cubicle. Emergency bells are outside of the cubicles in several sections of the room for the purpose of sounding a general alarm to the resident physicians when a child is in need of immediate intubation.

Wash basins with knee controls are located in various parts of the wards, as frequent washing of the hands is required to avoid carrying infection.

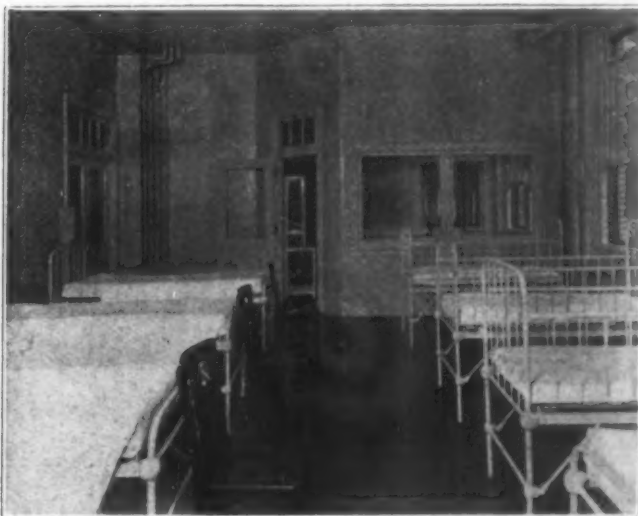
The nurses' office is located in the northwest corner of the ward with the patients in full view. In the northeast corner of the building are toilets, hoppers and facilities for bed pans.



Hallway of intubation building.



Ward for girls showing nurses' night watch room. Each bed is provided with emergency lights.



Ward for boys, intubation building. Construction and equipment are the same as for the girls' ward.

Glow lights are installed on the floor level to light the ward at night in such manner as not to disturb the patients.

Throughout the ward the radiators are encased to prevent injury and accidents to the children. There is a solarium at the end of the ward for convalescent patients.

The first floor has its main entrance from the hospital grounds and gardens and is so constructed and managed as to eliminate any possible contact with the other hospital units.

Passing down the main corridor, from the service entrance, one approaches on the west the diet kitchen, the dining room, the linen closet, the operating room, and the school and playroom. The diet kitchen is similar to that on the floor above, with every detail of equipment, all in white, to meet the needs of excellent culinary service. The electric refrigerator containing apparatus for making butter cubes, would arouse the envy of any housewife.

The dining room, designed particularly for children, has a western exposure. It is well lighted and ventilated. There is a long dining table and groups of chairs about it.

Next to this is the linen closet, where bed clothes and the usual sick room supplies of towels, pajamas, etc. are kept. The operating room is of particular interest. Here children with chronic obstructions in the larynx and trachea are treated by surgical means to reconstruct the air passages. A specially selected set of instruments is provided

for this particular purpose. A sterilizer, operating table, instrument cabinets, and other equipment common to an operating room are in use.

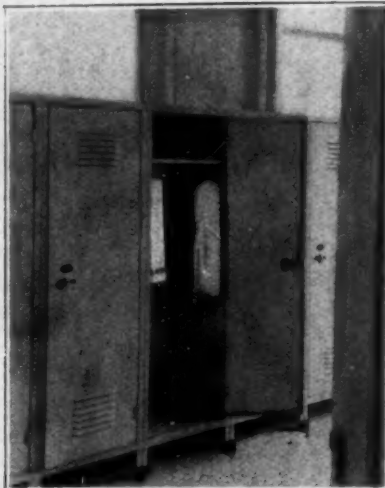
Following down the corridor one approaches the school room and play room. The desks are arranged so that the light comes over the left shoulder and are designed for comfortable seating.

Blackboards and other equipment common to a class room in a public school are provided. A special teacher is employed for the instruction of these patients in those subjects taught in the primary grades. The playroom is adjacent to the class rooms and is provided with a library containing books particularly selected for their interest to children, and games for their entertainment. One hour each evening during the week is devoted to reading. Occupational therapy is also a feature of the education of these patients.

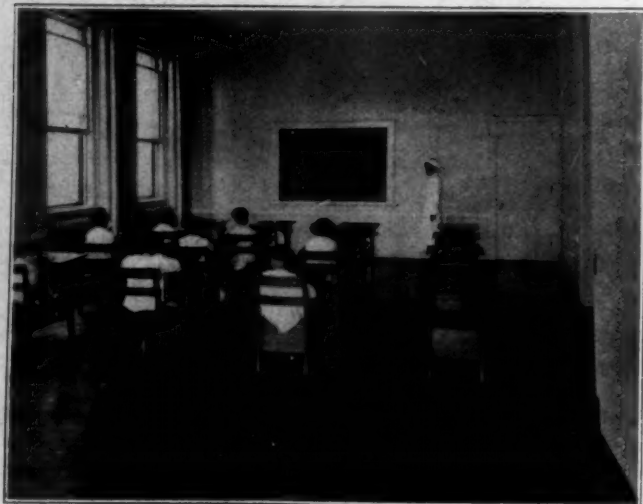
On the East side of the building is a ward for boys and a ward for girls. Between them is the nurses' office constructed of

steel frame and plate glass, so that there is a full view of both wards. Over each bed is a socket for illumination in case of emergency, and glow lights are provided for night. On the north and south ends are the toilets, shower baths and lockers. There are no bath tubs. Each child has his or her own locker in which are kept soap, towel, tooth brush, comb and hair brush, glass thermometer, pajamas and slippers.

A regular daily routine has been adopted to insure efficient care and service to the patients, and



Locker room in basement where all clothing except that worn in the wards is kept in the child's separate locker. The individual service consists of thermometer, glass, napkin, towels, face and bath; comb and brush, tooth brush and tooth paste, soap, pajamas and slippers.



School room under supervision of trained leader, intubation building.



Dining room, intubation building.

to maintain order and discipline.

6:30 a. m. to 6:45 a. m. Rising hour. Washing and bathing and dressing. Clothing inspected by the nurse in charge. General policing of ward. Example: Airing all beds; throwing back the bedding from the bed; placing the pillow in order, etc.

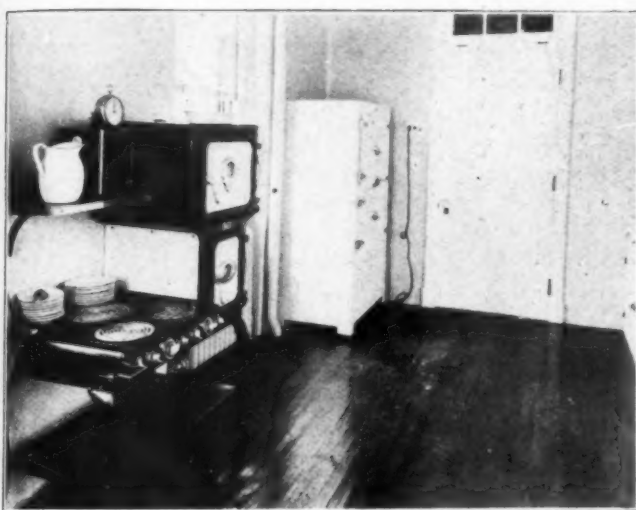
6:45 a. m. Every tube to be changed before breakfast, and often as necessary when directed by the chief of service—Dr. Annon.

7 a. m. Breakfast.

8 a. m. General inspection of building and patients by nurses in charge.

9 to 11 a. m. School.

10 a. m. Minor dressings by nurses in charge,



Diet kitchen of intubation building.

taking the several children in turn into the dressing room and return same to school upon completion of dressing.

10. a. m. Glass of milk.

11 a. m. Recreation in open air, weather permitting.

11:45 a. m. Clean up preparatory to luncheon.

12 a. m. Luncheon.

1 p. m. to 2 p. m. Rest.

2 p. m. to 3 p. m. School and occupational therapy.

3 p. m. to 4 p. m. Recreation and visiting—Tuesdays, Thursdays and Saturdays.

4:40 p. m. Clean up preparatory to supper.

5 p. m. Supper.

5:30 p. m. to 6 p. m. Reading-hour.

6:30 p. m. Bath.

7 p. m. Bed-time. Lights out, except the lighting of the glow-lights.

Next to the originator of a good sentence is the first quoter of it.—Emerson.

NEW PLANT FOR PALMER TUBERCULOSIS SANATORIA

Ground has been broken for an entirely new plant for the Palmer Tuberculosis Sanatoria at Springfield, Illinois. This plant, when completed, will offer some new and unusual features in sanatorium operation.

One of the interesting features is a modern surgical hospital of about twenty-five beds which will be devoted to the surgery of the lung, both tuberculous and non-tuberculous; to general surgery among tuberculous patients, and to the obstetrical care of tuberculous women. In connection with the hospital will be a small preventorium for the care of the new-born children of tuberculous mothers, designed not only to protect these infants from infection, but to give them the best opportunity for a satisfactory start in life.

Another interesting feature for which provision is being made in the new buildings, is a thoroughly organized school of instruction in tuberculosis and right living, in order to prepare patients for home life and for the protection of the members of their households. This department will include a well equipped and well organized section of occupational therapy.

The buildings which will constitute the new sanatorium are of hollow tile and concrete construction, one story in height, and are a Spanish style of architecture.

SOCIAL SERVICE AND HOSPITAL PERSONALITY

"Is your hospital simply that huge cold impersonal building, or is it rather an open friendly institution always ready to extend open arms to meet any existing emergency and to answer the demands when possible from the unfortunate community families, who can not possibly answer them themselves? A band of confidence has been established, fear has been dispensed with, and today the social service worker in our hospitals bears the commercialized title (if that is possible) of agent between the hospital and the community. In the last analysis, it is the worker that brings the patient to the hospital wards or dispensary and without her, really, could we maintain our departments, especially our tonsil departments, keep our doctors busy and our beds occupied? If more hospital superintendents throughout the country would realize the significance and importance of a social service department and become conversant with its marvelous help, the sooner their hospitals would tend to become real community centers: centers of social, therapeutic, research, preventive and corrective activities, rather than merely existing for the sole purpose of curing disease."—Edgar Charles Hayhow, Hospital Social Service, May, 1923.

HENRY PHIPPS PSYCHIATRIC CLINIC ON FULL TIME BASIS

Sufficient funds to place the Henry Phipps Psychiatric Clinic on a full-time basis are practically in hand, as all but \$35,000 of a fund of \$2,000,000 has been raised. This, it is confidently expected, will be easily raised before the time limit set by the anonymous donor. In addition to the initial gift of \$1,000,000, the Rockefeller General Educational Board has contributed \$750,000 and Mr. E. W. Harkness of the Standard Oil Company, \$125,000. Other contributions have amounted to \$90,000. With the exception of the psychiatric department in the University of Iowa, this will be the only department of psychiatry in a medical school on a full-time basis.—*The Nation's Health*.

PUBLICITY THROUGH VISITATION*

BY RALPH WELLES KEELER, COUNSELLOR IN PUBLICITY OF THE BOARD OF HOSPITALS AND HOMES OF THE METHODIST EPISCOPAL CHURCH.

THE value of getting the message of the hospital before the public grows in significance as one studies the places into which carefully prepared publicity carries it. New methods of publicity and new channels for this message continue to suggest themselves as one delves deeper into the subject. And whatever way appears for getting people into contact with what you have to say, should be welcomed gladly, no

matter how much extra work is involved. Each new informed man and woman goes about spreading the good news of hospital service and health preservation. And that is the end that is sought.

The newspaper, which carries the message to thousands, the spoken word, with its backing of a strong personality, and the letter, in which more personal discussion is permissible, each has a value peculiar to itself. The same is also true of the method of publicity which personal visitation to the hospital makes possible. And perhaps in some ways there is greater and more lasting value in the visitation method than in the other forms of publicity already discussed. We are all eager to be shown. And coming into actual contact with the work of the hospital leaves a mental picture which inevitably becomes a part of all future thinking about the hospital visited or hospitals in general.

There are first of all, a number of occasions when certain people naturally come to visit the hospital. Such visits should be made to serve a larger purpose than that which brought the individual there. True, when one comes to visit a friend who is a patient in the hospital, the visitor comes not because of the hospital, but because of the friend. But why let his visit go by without his becoming a little acquainted with the hospital and the great humanitarian work for which it exists? There could always be some one on duty to give a brief statement concerning the work of the hospital. A bulletin board could be hung

A great many people seldom visit a hospital unless they have a member of the family or a close friend confined there for treatment. When such an occasion arises, these casual visitors often make startling discoveries which dispel their fears and go a long way toward developing in them a favorable attitude together with a friendly disposition toward the hospital. It is upon such occasions, as Mr. Keeler points out, that the hospital has a splendid opportunity of exhibiting its personnel and equipment to its own advantage in the way of publicity. The importance of the personal visit can not be overestimated, for this form of publicity is the most elementary way of acquainting people with the hospital.

in the reception hall, and on this could be posted fresh items of interest concerning the hospital. A condensed report of the year's activities, written in "newspaper style" could be put in the hands of the visitor. And a live, illustrated booklet entitled "A Trip Through Lenox Hill Hospital" (of course using the local name) could be given out to each visitor. This printing would cost something. But when one calls to see a patient

he is open-minded for receiving information concerning the institution in which his friend is receiving treatment.

When a corner stone is laid or a new building is dedicated, the hour is appropriate for one of the addresses to be thorough-going publicity in character. Usually there is an elaborately printed or engraved program setting forth the titles of all who participate. This too often is all the printed material available. An illustrated booklet such as has just been mentioned would render large service at such a time. And a neatly printed "Talking Points" giving the salient facts concerning the history, work and needs of the hospital would be taken home and read by the entire household.

The same thing should be done at hospital banquets or other formal functions. And at these indoor functions a carefully prepared lantern slide address on the hospital could be given to good advantage. This last could be used on many other occasions outside of the hospital as well.

It is true that the day's task uses up most of the time and energy of every one employed in the running of a hospital. What is here suggested, however, should be done, even though it means another high-grade employee to do the work. And the publicity man of a hospital should be a high grade person, for the various demands that are made upon him call for detailed knowledge, tact, and strong personality, as well as technical ability in his special field.

Publicity through visitation has only been begun when we deal with the people already men-

*This is the fifth of a series of articles on hospital publicity prepared for THE MODERN HOSPITAL.

tioned. Only a very few of those who ought to know the hospital first hand are included in these groups. When provision has been made for these, and the plan is in good running order, efforts should be made to interest and bring to the hospital some of the groups already listed as possible folks to whom the spoken message should be given or to whom letters could profitably be written.

The Larger Visitation Idea

Most lodges are interested in hospitals to a greater or lesser degree. Arrange for delegations from every lodge in the community to visit the hospital, a delegation at a time. Have the members of the chamber of commerce, the board of trade and the city officials come at another time. An afternoon hour would be best for women's clubs. Consult with the school authorities and arrange for at least the high school students to visit the hospital in groups of a size convenient to handle. There are some labor unions that would also welcome such an opportunity. And the number and variety of groups can be enlarged according to the particular groupings of your own community. Make the invitation very personal. If possible, send some one to deliver in person the invitation to each particular group.

When the Visitors Arrive

On the day when any group is to arrive see to it that your information attendant knows about it. Otherwise your guests may be met with the statement, "No visitors are permitted at this hour." When they arrive have them conducted to the waiting room, and the person who is to show them through the hospital summoned immediately.

In deciding who shall be the guide on such a visit, it is well to bear in mind that it *must* be some one who is competent to explain things and answer questions satisfactorily. The visitors are likely to have no technical knowledge at all, and to refer to the "Harrison Law Drugs," meaning narcotics which can be taken from the hospital drug store only on a physician's prescription, gives the kind of information that leads to confusion. Let the guide also be one who does not immediately impress the visitors that he is worked to death, and is leaving some far more important task undone in order to take time to show them through the hospital. The arrival of a dozen or fifteen guests is the opportunity to make that number of intelligent hospital enthusiasts and should be recognized accordingly. It is better to have a man guide for men and a woman guide for women. This permits greater freedom in the asking of questions. Before any groups

are invited, the guide should make a careful tour of the hospital in company with a doctor and a nurse. This is for the purpose of refreshing himself on the details of every phase of the work of each department. It also gives him a chance to ask questions concerning things of which he has only a general knowledge. For many who sit in the front office of a hospital are woefully lacking in a knowledge of much that is going on in ward, operating room and laboratory.

The entire staff of the hospital should be made familiar with the visitation plan. This will avoid curious wonder on the part of all as to why folks are going through the hospital at an hour not set for visitors. They will also not think the visitors an investigating committee and get together to talk over what it may all be about.

Seeing a Hostel of Healing First Hand

After greeting the visitors and disposing of their hats explain briefly what the trip through the hospital is to include. Also state that questions are welcome, and that if any of the questions are such as to involve a long discussion, they will be written down and be gone into fully at the end of the trip. And throughout the visit talk to and with the visitors. Do not merely "recite a piece" that has been carefully memorized. What you say is all new to each new group of visitors. It must be presented in a fresh, interesting manner.

Explain the difference between private rooms, semi-private rooms and wards. Point out that no matter how much or how little the patient pays he receives the very best medical, surgical and nursing treatment. Explain that the reason some patients have one doctor and others another is sometimes due to a division of labor, and sometimes due to the fact that a doctor may bring his private patients to the hospital for treatment, and then of course comes to the hospital to treat them himself.

Make it clear why a patient's clothes cannot remain in the ward. Let the visitors read the slip on which is printed:

"The following is a list of clothing left by the above named patient in the care of the Lenox Hill Hospital:

"All necessary cleaning of the same is at the risk of the owner, and the institution assumes no responsibility for money or valuables of any kind, unless the same are deposited with the superintendent, for which a proper receipt must be issued. "Signed by Patient"

This will make plain the absurdity of the claims of some relatives and friends when a patient is either discharged or dies.

The operating room will be of intense interest, as nearly every one knows a friend who has had some kind of an operation. Show the room and while there tell how the doctors and nurses wear white gowns and caps and muslin mouth coverings while an operation is in progress. State this is to prevent hair or breath getting into the wound. Also tell of the antiseptic washing of hands with green soap, bi-chloride and alcohol, for the patient's protection. Explain how the patient is prepared for an operation, and how the part of the body to be cut is made hairless and absolutely antiseptic.

The Operating Room and the X-ray

Give an account of how a nurse gets the operating room ready—the making of everything antiseptic, getting out the hand basins and the basins for the doctors. Describe the contents of the "sterile package"—the towels, the dressings, large and small lap sheets (explaining that the patient is all covered except the part of the body where the incision is to be made), the regular sheets and the sheets for the table. Also describe the getting ready of the special set of instruments for the particular operation to be performed.

Make clear the progress of the patient from his bed to the operating room—the carrier on which he is wheeled, the stop at the anesthesia room, where a doctor and a nurse gives the anesthesia to a female patient, and a doctor and an orderly to a male patient. Show the packing room, where the "sterile package" is made up and prepared for sterilizing, and the sterilizing room where gloves are sterilized fifteen minutes and dressings, towels, etc., thirty minutes, all under a pressure of fifteen pounds of steam.

Show the dressing rooms for both the doctors and nurses, and the robes, caps and mouth-protectors that they wear. Take the visitors into the x-ray room. If possible, have the apparatus carefully explained. Point out the tremendous service the roentgen ray has rendered to medical and surgical science. Explain that 2,685 patients were x-rayed during the year, that 13,065 films were used and tell what types of cases some of them were. Exhibit some of the negatives, explaining what the case was and how the x-ray helped in the final diagnosis. If there is time, tell a little about Wilhelm Conrad Roentgen's experiments in his efforts to make the wonderful discovery that was finally his.

It is not necessary to show the visitors through every ward in the hospital. If a group of women, show them through the women's medical ward, the women's surgical ward and the obstetrical ward. If a group of men, show them through the

men's medical ward and the men's surgical ward. Take all groups through the children's wards and the other departments of the institution.

In the men's medical ward take opportunity to explain the daily routine of a nurse's work, from the washing of the patient's face and hands in the morning on through the bed making, the rounds with the physician, the many little attentions of the day, the giving of medicine, the cautioning of visitors not to over-tax the loved one whom they are visiting, the serving of the meals, the making ready for the night, and the all night vigil of the nurse who must watch the long hours through with a score of sick men needing her attention.

Explain Rules of Visiting

While here it might be well to point out the wisdom of the rule some hospitals have that only two people per day may see a patient. With two for each of twenty patients, all present and talking at the same time, it is soon seen that a "quiet zone" sign of some kind is needed inside as well as outside the hospital. Also give some idea of the variety of diseases for which folks are treated. Take a few lines from the annual report for examples, such as angina pectoris, diseases of the arteries (atheroma, aneurysm, etc.), embolism and thrombosis, diseases of the veins (varices, haemorrhoids, phlebitis, etc.), diseases of the lymphatic system (lymphangitis, etc.), haemorrhage and other diseases of the circulatory system, diseases of the nasal fossae, of the larynx and of the thyroid body. Most folks have heard of typhoid and scarlet fever, of diphtheria and measles, of pneumonia and erysipelas, but most of the commonest diseases are unknown to them, at least by name.

While in the men's surgical ward explain the case charts, showing how a patient is entered on the hospital books, with name and address, when admitted, occupation, nationality, age, whether married, single or widowed, diagnosis and complications, as well as any history of the case necessary for intelligent treatment. Point out how the nurse records all medication and condition of the patient, as well as the significance of keeping records of both stool and urine, and the significance of the recording of the length of time the patient sleeps. Explain the chart on which pulse, respiration and temperature are plotted, and indicate how the attending surgeon is guided by what he reads thereon. Show a daily ward report on which each day the nurse in charge reports the names of all patients admitted, discharged or transferred during the day. Also the red "dangerously sick" report, which the house

physician or surgeon signs and sends to the office of the superintendent of the hospital immediately whenever the condition of any patient warrants the notification of friends.

Dispel Awe About Operations

Here it might also be of interest to name some of the operations which have been performed: abscess of the abdominal wall, adhesions about the stomach, appendicitis, carcinoma of the lip, cataract, dislocation of the foot, foreign body in the arm, fracture of the coccyx, hernia, tuberculosis of the bone, wounds from gunshot, amputation of limbs, etc.

Show the supply room and explain how each ward has its own supplies of towels, sheets, dressings and standard drugs. Explain the book used by the doctors for writing their orders (prescriptions in the outside world). Show also the flush rooms, and the ward diet kitchen, if there is one. It is also worth while to mention the fact that of the 10,741 operations performed during the year, some on patients dying from accidents when brought in or with troubles for which there is no cure by operation or otherwise, 10,117 of the patients were finally discharged.

The children's wards, with their pathos of malformed boys and rickety girls, with fever tossed little bodies and babies with eyes wide open with wonder, are of interest to even the hardest-hearted. Put the white coat on your visitors and walk quietly through with them. Let them watch the children trying to make merry with their toys as they endure their suffering. There is little need of saying very much here, as no one who has ever seen a children's ward ever forgets it.

The visit to the laboratory can be made exceptionally interesting. Have a report on an examination of gastric contents read and explained, pointing out the significance of knowing just what the test meal was and the time it was taken and expressed. Explain the part played in the color, constituency, odor and mucus discovered, as well as the quantity and character of the sediment, and the volume, both total and filtrate. Explain the chemical examination and the meaning of free, total acidity, lactic acid and blood, and the value in knowing the particular blood test used. Tell what both the microscopic and special examinations revealed. Then relate this entire examination to the disease in the treatment of which it is to help.

This leads readily to mention of other examinations made in the laboratory—urine, blood, spinal fluid, blood culture, sarcoma, appendix, tumor and tuberculosis culture. It will be a revelation to most of the visitors. For only a very few know of the

laboratory and fewer still what is done there.

The hospital drug store should be visited and the quantities and varieties of medicines pointed out. The sewing room is of interest, for it and the linen supply room impress one with the vast number of bed spreads, bed bags, bed pan covers, bed sheets, abdominal binders, "T" binders, blue coats, drawers, draw sheets, hot water bag covers, ice bag covers, pants, pillow cases, shirts, stockings, bath and face towels, underskirts, wash cloths and wrappers that have to be made in ever increasingly large numbers. Many visitors have never thought of this side of hospital tasks. And a trip through the laundry will demonstrate what a job it is to keep all these supplies clean and ready for future service.

Throw open the door of the refrigerating plant and give its temperature and capacity. Show the butcher at work and give the figures for lamb, beef, pork, chicken and fish per week. Go through the bakery and tell of the wagon-loads the month's bread would make. Show where the flour, cocoa, sugar, dishes and all the rest of the things needed for meals are kept, and how they are requisitioned.

The dispensary should be visited during the hours when it is open, if possible. It may sound like Greek to tell your visitors that during the year the dispensary treatments by departments were: 1,219 orthopedic; 772 neurological; 3,130 surgical; 1,080 gynaecological; 3,512 eye; 2,477 throat-ear-nose; 1,773 internal male; 2,349 internal female; 1,916 children's; 499 tuberculosis; 2,274 dental; 25 vaccine; and 285 endocrine. But as they sit there and see the stream of men, women and children coming in for treatment, and watch the physicians and surgeons treat one for this and another for that, what sounded like Greek will be understood in the universal language of human need.

Is Such Visitation Worth While?

Such a question might be asked of the visitors at the end of the trip, if one doubts. Not all that may be done on such a visit has been indicated, but enough has been said to enable one to work out the plan for his own institution. At the end of the trip the questions held over should be answered, and literature given to each of the visitors. The name and address of each should be taken and the group which they represent. Once they have made such a visit your newspaper, spoken and letter-writing publicity will have new meaning when it comes to their attention. And they will go away to tell countless others what they have seen and learned. You have created publicity agents who will spread your story for all time.

THE EARLIER YEARS OF THE AMERICAN HOSPITAL ASSOCIATION

By DEL T. SUTTON, FORMER PUBLISHER AND EDITOR OF THE NATIONAL HOSPITAL RECORD, DETROIT, MICH.

TAKEN as a period of time in one's life, twenty-five years—a quarter of a century—is judged by that portion of life in which the period occurs. During that portion covered by our childhood and youth, when we are anxious to attain to manhood and womanhood, that we may take our place in the activities of life, the years pass all too slowly. Later on, when we have reached the peak of the allotted span of life and we begin the journey on the other side of "the hill," then the years pass all too quickly, and to some there comes the desire to "reminisce," to recall the activities of earlier years in which we may have had an active part. It is largely in this spirit that I am preparing this article, covering the origin and early history of the American Hospital Association—originally known as the Association of Hospital Superintendents.

This year The American Hospital Association enters upon its twenty-fifth year of existence, the original organization having been effected at Cleveland, Ohio, at a meeting held September 12 and 13, 1899. Of the nine persons present at that meeting, only a few are living, and none of these surviving is now engaged in hospital work.

An examination of the present membership list of the Association, as given in the last printed annual report, shows that less than two dozen of the present members were identified with the Association during the first few years of its existence, and the presentation of the facts connected with the organization of the Association can hardly fail to be of interest to the present membership.

In August, 1897, I began the publication of The National Hospital Record—the pioneer American hospital journal. Prior to that time American hospital officials, as readers, and American manufacturers of and dealers in hospital furnishings and supplies, as advertisers, had had no journal of the type, and as a result my hopes for success with the journal were slow in being realized.

In my former publishing and commercial experience I had noted the distinct value of developing class, trade or professional associations which would enable those interested to gather and exchange experiences; and, believing that such

an association would mean very much to the American hospital field, I began editorially advocating such an association. This was in 1898. The first man to write me in encouragement of the plan was Mr. James S. Knowles, then superintendent of the Lakeside Hospital at Cleveland, who at that time was counted as being one of the best informed and most capa-

ble hospital administrators in the field. Others were interested in the plan and it was decided to call a meeting for organization purposes, and that meeting was held at Cleveland on September 12 and 13, 1899. Those present were: Mr. Knowles, Mr. W. H. Webber, of the Cleveland Homeopathic Hospital, Mr. S. W. Richardson, United States Marine Hospital, Mr. J. C. Reiber, City Hospital, all of Cleveland; Mr. Charles S. Howell, superintendent of the Western Pennsylvania Hospital, at Pittsburgh; Mr. Harry W. Clark, superintendent of the University Hospital, at Ann Arbor, Mich.; Mr. A. W. Shaw, superintendent of Harper Hospital, Mr. A. T. Putnam, superintendent of the Grace Hospital, and the writer, all of Detroit.

First Meeting Held in 1899

The meeting was called to order by Mr. Knowles, who presented the purpose of the meeting, when the work of organization was taken up and carried through. The first officers elected at this meeting were: chairman, J. S. Knowles; vice-chairman, Harry W. Clark; secretary, Charles S. Howell; treasurer, A. W. Shaw. At this meeting the National Hospital Record was designated the official journal of the Association and I was given the honor of the first honorary membership.

In view of the observance of the twenty-fifth anniversary of the American Hospital Association in connection with its annual meeting to be held at Milwaukee, Wis., October 29-November 3, THE MODERN HOSPITAL is publishing a series of articles dealing with the history of the Association. These articles, the first of which appears in this issue, have been prepared by Del T. Sutton who was intimately connected with the early history of the Association.

The second meeting was held at Pittsburgh, August 21, 22, and 23, 1900, with an attendance of approximately twenty-five. Among those present was Mr. Daniel D. Test, superintendent of the Pennsylvania Hospital at Philadelphia. Barring periods of ill-health, Mr. Test has been active in the affairs of the Association during the intervening years and now is, I believe, in point of active membership, the oldest on the membership list.

It was felt that the New York hospital superintendents, together with those in the territory east of New York, must be interested and, as a result, New York City was chosen as the place for the third meeting. This was held September 10, 11 and 12, 1901, and showed a substantial growth in membership and a material improvement in the character of papers presented, etc. At this meeting such men as Dr. C. Irving Fisher, of the Presbyterian Hospital, Mr. George P. Ludlam, of the New York Hospital, Dr. S. S. Goldwater, superintendent of Mt. Sinai Hospital, and others prominent in hospital work, joined the Association and began to lend their aid and influence to the development of the Association and its work.

The fourth meeting was held at Philadelphia with Dr. J. T. Duryea, superintendent of the Kings County Hospital, at Brooklyn, as chairman. At this meeting the first Canadian member, Dr. Charles O'Reilly, superintendent of the Toronto General Hospital, was elected vice-chairman. Mr. Test was honored by being elected secretary.

The fifth meeting was held at Cincinnati, with Mr. John Fehrenbatch, superintendent of the Cincinnati Hospital, as chairman. At this meeting Mr. Test was chosen chief officer, the title being changed from chairman to president, with Mrs. A. M. Lawson, superintendent of the New York General Memorial Hospital as secretary, and Dr. A. B. Ancker, whose death has recently occurred, and who for many years was superintendent of the City and County Hospital, at St. Paul, as treasurer. It was at the Cincinnati meeting that interest in the activities of the Association was first shown by Dr. C. R. Holmes, who a little later on became well known in hospital circles, both in this country and abroad, through his work in investigating hospital buildings abroad and incorporating what were at that time counted as being the most approved plans in hospital construction and adapting some of the ideas in the new plant for the Cincinnati General Hospital.

At the sixth annual meeting, held at Atlantic City, Dr. George H. M. Rowe, superintendent of the Boston City Hospital, and one of the world's leading hospital authorities, was chosen as presi-

dent, and Boston was selected as the point at which to hold the next annual meeting. The meeting at Boston meant much in the life of the Association, inasmuch as it brought an increase in membership of several who previously had not evinced much interest and whose aid and influence were needed at that time.

To those having an intimate connection with and knowledge of the workings of the Association prior to the Boston meeting, that meeting seems to stand out as a decided change in the Association's personnel and in the conduct of its convention affairs. At the previous meetings one of the main ideas seemed to be to get together and have a "good time." The annual banquets had been of a rather decided "wet" type, with the result that some of the members were displeased and lost interest in the Association. This may be considered as plain talk, but it is true.

The eighth meeting was held at Buffalo, with Mr. George P. Ludlam, superintendent of the New York Hospital, as president. Mr. Ludlam several years ago retired from active hospital work, being succeeded by Dr. Thomas Howell as superintendent of the hospital, but was shown the honor of the appointment as superintendent emeritus. There are many of us who will remember Mr. Ludlam as a finished speaker, and whose talks at the meetings were of a distinctively inspirational type.

First Exhibit Held at Eighth Meeting

It was at the Buffalo meeting that the first commercial exhibit of hospital furnishings and supplies was made. This exhibit was brought about in this way: I made the offer to the president, Mr. Ludlam, that if I could be allowed the privilege of inserting advertisements in the program for the meeting I would print and distribute the programs without cost to the Association. This offer was accepted by Mr. Ludlam. The replies to my letters soliciting advertising in the official program brought out inquiries regarding the exhibiting of sample furnishings and supplies.

From Mr. Ludlam I obtained the permission for such an exhibit, with the result that those attending who were not located near the large cities were able to see and learn much of interest and value to them in their work. At that time there were a considerable number who did not favor such an exhibit, feeling that it commercialized the meetings, and no further exhibits were held for several years, but later on the plan was again taken up, and the last annual report of the Association shows that the receipts from the exhibits now pay a very large share of the operating expenses of the Association.

The Buffalo meeting also marked the broadening of the work of the Association by selecting Chicago as the place at which to hold the ninth annual meeting. There were those who felt that if the Association were to attain to the growth it should, a distinct effort must be made to interest the hospital officials of the middle-western and western states. This plan met with considerable opposition, but the advocates of Chicago won and as a result the Chicago meeting had the largest attendance in the history of the Association at that time.

It was at the Buffalo meeting that Mr. Asa S. Bacon was elected treasurer of the Association, a position he has continuously held up to his election last year as president. It was also at the Buffalo meeting that Dr. Warren L. Babcock, later secretary and president of the Association, and Dr. A. R. Warner, now executive secretary of the Association, but at that time superintendent of Lakeside Hospital, at Cleveland, first began to take an active interest in the Association. It will thus be seen that the Buffalo meeting marked a distinct epoch in the history of the Association.

Dr. Renwick R. Ross, superintendent of the Buffalo General Hospital, was in charge, as president, of the ninth annual meeting, held at Chicago, September 17, 18, 19 and 20, and to his ability and energy was due much of the success of the meeting. He was given able assistance by Mr. Bacon, the newly elected treasurer, and by Mr. Louis R. Curtis, superintendent of St. Luke's Hospital, Dr. Jackson, superintendent of the Wesley Hospital, Mr. Wahlstrom, of the Augustana Hospital, and others of the Chicago hospital field. As previously stated, the attendance at this meeting eclipsed that of any former meeting and many of the middle-western and western hospital officials were added to the Association membership.

At the Chicago meeting, Dr. S. S. Goldwater, superintendent of Mt. Sinai Hospital, New York City, was elected president and Toronto was chosen as the point at which to hold the tenth annual meeting. Dr. Babcock was elected secretary. Toronto was chosen as the meeting place largely because of the desire of Mr. John Ross Robertson, publisher of one of Toronto's leading daily newspapers, who had studied hospital affairs in various countries and who was the patron saint of the Toronto Children's Hospital. While the Toronto meeting was not as largely attended as had been hoped for, it was representative in character, and accomplished much in the upbuilding of hospital work in Ontario.

The above is a fairly complete history of the origin, organization and accomplishments of the American Hospital Association during the first ten

years of its existence. Much of the above will, I believe, be of special interest to the large majority of the present membership of the Association from the fact that, so far as I know, the information I have given has not heretofore been available.

The present standing of the American Hospital Association, the work it has accomplished in the upbuilding, standardization and general betterment of hospital affairs in the United States and Canada, and the beneficial influence it has spread to hospital affairs the world over, are matters such as can not but bring great satisfaction to those who have guided and aided the Association. To me there comes a feeling of much pride in having been to some extent a factor in the original organization and early work of the Association.

"CHIRURGIANS AT BART'S"

"Your charge is, faithfully and truly to the uttermost of your knowledge and cunning, to help to cure the griefes and diseases of the poor of this Hospitall, setting aside all favour, affection, gain or lucre, and that as well to the poorest destitute of all friends and succours, as to such as shall peradventure be better friended, yee shall with all favour and friendship procure the speedy recovery of their health.

"Also for your stipend and fee (xx.l. yeerly), given and paid out of this house, yee shall be ready at the commandement of the Almoners of this house, and Hospitaler of the same, to view and look upon such diseased persons, as here from time to time shall be presented. And after your view to signifie to the said Almoners or Hospitaler, your Judgement of the said diseased person without all affection, whether he or she be curable or not, to the intent there may be none admitted into this house, that shall be incurable, to the great let and hinderance of the curing and helping of many other; nay, none rejected and put back that are curable, to the great slander of this house and displeasure of God.

"Also at all such times as we shall goe to the dressing of any diseased person in this house, as much as is in you, ye shall give unto him or her, faithfull and good counsell, willing them to minde to sin no more, and to bee thankfull unto Almighty God, for whose sake they are here comforted of men. And above all things, ye shall take nor receive of no person, any gift or reward for the curing and helping of them, either of them, or their friends, but yee shall first make the same offer or reward known unto the Almoners of this house.

"Also we utterly forbid and command you, that yee by no colour pester or burden this house with any sick or diseased person, for the curing of which person, ye before have received a sum or sums of money, upon pain to be dismissed this house.

"This is your charge and office, with the which ye have to do, and not with any other thing, neither with any other office in this house. But if you shall perceive at any time, any thing done by any officer or other person of this house, that shall be unprofitable thereunto, or that may be occasion of any disorder, or shall engender slander to the same, that ye then declare it to the Almoners, or one of them, and no farther to meddle therein."—*Orders and Ordinances for the Better Government of the Hospital of Bartholomew the Lesse, London, 1652.*

TUBERCULOSIS FINDS CURE IN THE LEYSIN HELIOTHERAPY CLINICS

BY A. ROLLIER, M.D., MEDICAL DIRECTOR OF THE INSTITUTIONS FOR HELIOTHERAPY, LEYSIN, SWITZERLAND.

TUBERCULOSIS, in whatever part of the body it infects, and more especially the external forms, unjustly called "surgical" tuberculosis (because treated too long by operative measures exclusively) is not alone a local disease dependent upon local treatment. All forms of tuberculosis should be considered as local manifestations of a general disease in which the question of rebuilding plays a principal part. Essential treatment for such localizations is a generalized therapy, aiming at the reconstruction of the whole organism.

First Leysin Clinic Opened in 1903

As life in the open air and sun is essential for such a reconstruction, we undertook to make prac-

practically never interrupted. This is an indispensable condition for bringing the organism at its maximum vitality and defense and for obtaining the cure of the injuries by a natural auto-immunization.

Heliotherapy Succeeds Surgery

Along with the choice of a site, another important point is the strict technical application of heliotherapy. We follow a systematic method which we call the *derivative method* which consists in a careful and progressive exposure of the different parts of the body, beginning with the lower extremities. A very strict medical and individual supervision of every patient is very necessary if accidents are to be avoided.



Clinique "Les Chamois" Leysin, 4,500 feet above the sea level, the highest of Dr. Rollier's institutions.

tical these conditions in 1903 by organizing at Leysin the first institution destined to the systematic heliotherapy of external tuberculosis. We wish to emphasize the fact that the most excellent tonic effect of the mountain air, when increased by the action of the solar rays, constitutes one of the best of stimulants.

One reason for choosing the high Alps for the erection of our clinics was that thus situated they possessed the most advantageous conditions for treatment. Air and sunbaths can be practiced there in winter as well as in summer, and are

Thus understood and applied, heliotherapy is the highest expression of conservative surgery and orthopedics and has the following advantages over operative measures. It avoids irreparable mutilations and conserves the maximum of articular function (we even find a remarkable return of function in many cases of articulations that had been absolutely ankylosed); it restores to the organism the harmony of its lines, and gives back to the world, not incomplete and deformed beings but normal individuals, capable of earning their living.

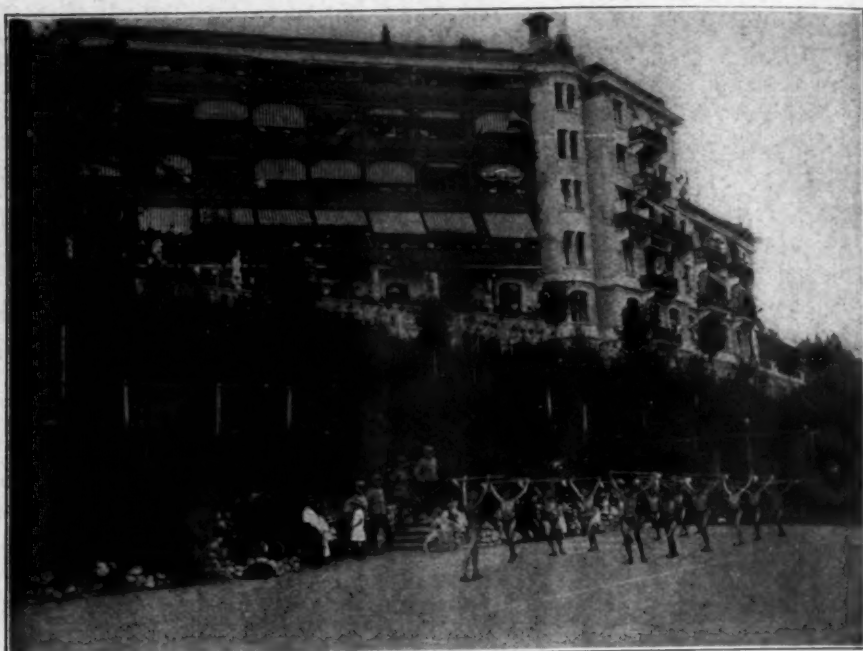
This treatment is not reserved exclusively for the wealthier classes. It is socially economic, for it costs the community less to cure one of its members completely, even at the cost of a year or two in bed, in the fresh air and sunshine, than to definitely lessen his value by a mutilating operation often followed by a recurrence of the illness in another part of the body.

If heliotherapy can cure all forms of tuberculosis equally in the adult and the child, further if it is the most efficacious means of maintaining the cured individual in good health, there should be all the stronger reason to expect it to prevent the outbreak of this disease. This has been varied by experience. Sun cure is the most active of prophylactics which fact explains the worldwide interest actually aroused in medical circles by heliotherapy. This interest is due not only to its therapeutic value, but perhaps even more to its social importance as a preventive measure.

The institutions we describe here have been organized for the application of heliotherapy, more specially in cases of external tuberculosis, but also for convalescent, debilitated, over-worked adults and children, for cases of non-tuberculous ailments (such as varicose veins, burns, etc.); for heliotherapy is also a most efficacious therapeutic agent in many diseases, surgical and medical, and of non-tuberculous origin.

Sun treatment does not necessarily involve the building of special houses for its systematic application. True, it is that among our different clinics, several of them have been erected for the special purpose of this therapy, but we also have quite a large number of houses which have been adapted for the sun cure by means of a few simple alterations.

We have not the space here to give a description of our thirty-four different establishments, but we shall give a few notes on three types of buildings in use for the sun cure at Leysin, showing the most simple as well as the most recent. We shall also describe our "*preventorium*," the school in the sun, at Cergnat, near Le Sépey, where we receive delicate children, predisposed to tuberculosis, and who, after having followed a course of systematic heliotherapy in the mountain air, are sent back home strong, sun-burnt, with sturdy muscles, healthy and happy.



Clinique "Les Frères," Leysin, one of the first institutions of Dr. Rollier, specially built for the purpose of heliotherapy.

The *clinique "Le Chalet"* a type of the mountain chalet converted into a sanatorium, the first institution for the systematic application of heliotherapy, was opened in 1903. When we first arrived at Leysin, this chalet was the only little boarding-house to be found in the village. We bought it and began to make the alterations to the building necessary for the carrying out of our purpose.

Convert Boarding House into Clinic

The addition of large balconies, on to which the patients' beds could be wheeled, made its first floor fit for the sun cure, and allowed exposure, and exposure to the sun's rays nearly the whole day.

On the second floor, the balconies could not be made wide enough to receive all the patients, so we had built a large roof-solarium, (which probably was the first to be made in Europe since the time of the Romans) where the patients could take sunbaths from morning until evening. Out of the small rooms with tiny windows that existed when we took the house, large dormitories have been made, simply by the suppression of several partition-walls, and all the windows have been enlarged.

The ground-floor has a large dining room, a sitting room, a room for surgical dressings, the matron's office, the kitchen and offices. Electric light and central heating were, of course, installed. The walls of the wards are painted in white, the floors everywhere covered with linoleum, and if there are no luxuries in this institution, comfort and cleanliness are attained at any rate.

Anyone wishing to start a practical and inex-

pensive sanatorium can see by this model that it can be done easily. It is in this simple chalet that we have obtained most of the cures which have made the reputation of heliotherapy, thus proving that sun cure can be successfully applied otherwise than in expensive sanatoriums. This house is now one of our free clinics and can receive about fifty patients. The first floor is reserved for children, the upper story for the adult patients.

Around the house there is a garden with grounds for the convalescent patients to walk and play at croquet or other games. A kitchen garden and a poultry run supply the institution with vegetables and eggs, respectively.

Mountain Hotel Becomes Sanatorium

Another type of institution that can be seen in Leysin is an ordinary hotel, built for tourists and subsequently transformed so as to admit patients. Our clinic *Les Chamois* is of this type.

The house is beautifully situated above the village, at a height of 5,000 feet above sea-level, among pastures and forests of fir-trees, sheltered from the wind by the mountains at its back.

As the building was facing south-east, it had the disadvantage of being deprived of sun on its balconies during part of the afternoon. To overcome this difficulty, we added on each floor a solarium on the south-western front of the house. This solarium is divided into boxes to which the patients can be wheeled in their beds, and thus can practice heliotherapy during the whole afternoon. This arrangement is particularly practical for the winter, when sun-treatment cannot be carried out in the early morning hours, owing to the

coolness of the air. During summer, on the contrary, the southeast exposure of the house allows the patients to begin their cure at sunrise, which is by far the best time during the hot months of the year.

This institution is also arranged for receiving non-patient guests, relatives of patients, as well as convalescents or over-worked people who are in need of rest. The house is provided with comfortable sitting and dining rooms, a hall, and a billiard-room. Once a week a cinema-show takes place in the house, and at the back of the dining room there is a small stage for the purpose of arranging theatricals, concerts and other entertainments. A tennis court which in winter can be transformed into a skating-rink has been provided. The pastures and roads around the clinic provide large scope for skiing and sleighing. Short and long walks, excursions on the neighboring mountains can also be easily undertaken.

Plan of Les Frénes Clinic

The building of *Les Frénes clinic* was erected about twelve years ago according to our own plans, for the purpose of practicing heliotherapy. It consists of a central block and two wings.

The central block faces due south. Its ground-floor is used for the services of reception. On the first floor there are two large dining rooms, the kitchens and offices. The other floors of this central part contain rooms with or without balconies which are more especially used for non-patient guests. On the fourth floor there is a room for surgical dressings and an operating theatre: the latter being used only for affections of non-tuberculous nature. Experience has taught us that in cases of tuberculosis of bone, operative interference should be avoided.

The left wing of the building is slightly set towards south-east. On its ground-floor are the radiographic and radiotherapeutic departments, rooms for orthopedics and phototherapy, bacteriological laboratories and offices. On the first floor there is a large hall where the patients can be brought from their rooms by the large lift, without leaving their beds. This hall is used as a *salle de fêtes*. Once a week moving pictures are shown, and there are often concerts, exhibitions and theatricals for the recreation of visitors. "Punch



Preventorium for children predisposed to tuberculosis, otherwise known as the "School in the Sun, Les Noisetiers," at Cernat near le Sepey.

and Judy" shows are given to the children; patients also give parties in this big hall.

The upper floors of this wing are reserved for a part of the staff. These floors are provided with large uncovered terraces, superimposed as steps which permit insolation even during the summer solstice when the solar rays shine perpendicularly. These terraces, however, have the slight disadvantage of being but little sheltered from the wind and from the solar rays when they are too intense. They are mostly used by patients who are not severely injured or who are already trained to the sun treatment. Insolation can be carried out on these terraces in summer from the early morning hours.

The right wing is set more towards southwest. On its ground-floor there are the sitting, smoking and billiard rooms, as well as kitchen offices. The four upper floors are reserved for the patient's rooms. Each bedroom has its private balcony separated from the adjacent ones by movable screens.

The first floor houses only children. It has several large dormitories where four to seven children live together. On the balcony, the partitions are generally removed, just leaving a separation between boys and girls during the hours of insolation. Thus the young patients can play and talk together. A teacher is attendant to the institution so that lessons may be given regularly on the balconies in fresh air and sunshine.

Three Upper Floors for Adults

Adult patients are received in the three upper floors, and there are eight bedrooms, with private balcony, on each of the three upper floors. The balconies adjoining the bedrooms are covered and are thus sheltered from any wind, which is a detriment in winter. During the summer solstice sun cure suffers a relative shortage on the balconies so that as a remedy we have arranged a large solarium which covers the whole roof of the house. This solarium roof serves many purposes: it forms the ideal balcony for sun cure, allowing us to utilize the maximum duration of sunshine; patients are brought up in their beds by means of the lift; there is an arrangement of curtains giving each patient the privacy he needs and some shelter; the solarium is open to the sky, but is provided with a sheltered gallery at the back,



Heliotherapy in Dr. Rollier's institutions. The solarium-roof at Clinique "Les Frênes."

where patients can be wheeled in case of need (sudden shower, etc.).

The solarium also is an ideal playground in the open air for the children who are allowed to get up and, because of its absolutely flat ground, is very useful for patients who are making their first attempts at walking. These solarium roofs are so important that we have advocated their construction on all our clinics.

One of the important things in the arrangement of the rooms is that the floor should always be level with that of the balcony, so as to allow the beds to be wheeled in and out without undue jarring. The doors are wide enough to permit the beds to pass easily through the opening. The walls are painted in bright colors, and can be washed, the floors are covered with linoleum there being no carpets. White linen curtains hang in front of the windows. The furniture is simple: besides the bed, there are the toilet-table, an armchair, a table and one or two cupboards. Each patient is provided with a special adaptable bed-table.

The Clinic *Les Frênes* is surrounded by a spacious garden where those of the patients who are allowed to get up can walk about or lie down in summer. There are also provided a croquet-lawn, and a tennis-court which can be transformed into a skating rink in winter.

Arrangements of Clinics Similar

The arrangements in our different establishments which number thirty-four, comprising altogether 1,000 beds, are pretty much the same. They vary of course, according to the size and

importance of the building, and those which have been lately built are generally more comfortable; but they are all arranged so as to allow prolonged insolation to each patient every day, and are more or less always like one of the three types that have been described here.

The "School in the Sun." The house *Les Noisetiers*, the preventorium, is situated at Cergnat, near Le Sépey, Alps of Switzerland, at about one hour's distance from Leysin. It was opened in 1910 in a picturesque site among woods and pastures.

The school in the sun is not, like other schools, composed of one large, or even many buildings, where classes are held. It is simply a large mountain chalet. On the ground-floor are the dining-room, the playing-room for rainy days and the kitchen. On the two upper floors are several dormitories with four beds each, for the boys, and some bedrooms for the staff, nurses, and teachers. When the weather is inclement, lessons take place under a covered shed adjoining the house, but on fine days, no special class-room is used, and lessons are given in the open air, sometimes at quite a distance from the school. There is a second chalet near the first where the girls are housed, with a teacher or a nurse. Meals, lessons, and games in common take place in the main house.

We have tried to provide an anti-tuberculous environment for children who are, for various reasons, thought to be particularly liable to contract the disease. During convalescent periods of diseases like measles and whooping cough, chil-

dren may be sent to this institution and receive adequate treatment which will prevent the outbreak of tuberculosis which very often follows those diseases. This sort of treatment is also indicated in anemia and general weakness, and is quite essential with scrofulous children.

Program of the Day at the Clinic

Most of the children who are admitted to this school have been considered as "delicate" for some time, although many of them have no very definite disease. They are pale children, most of them coming from large industrial centres, where they have been stooping too much over their school tasks. Their chests are narrow, they have no muscles, no strength, and seem ready to become prey to any illness, and especially to tuberculosis.

During the first weeks of their stay at *Les Noisetiers* the children who, as a rule, had been excessively coddled at home, are given ample rest, and the clothing is little by little reduced until they are, after a few weeks, able to live the same life as their school-fellows.

The following is the program of one day at "*Les Noisetiers*": 6 a. m. (winter 6:30) friction of the body with alcohol. 7 a. m. (winter 7:30) breakfast (milk, bread and butter and jam). 7:30 a. m. to 9:30 (winter 8 to 9:30) lessons, always given in the open air, and individually adapted to each child's health. The class is generally preceded by a walk to the spot where it is to take place. 9:30 to 10:30 a. m. Swedish drill (respiratory gymnastics). 10:30 to 12. Sun cure or games, according to the weather, wearing only bathing-suits on fine days. 12 lunch (soup, meat, two courses of vegetables, fruit). After lunch and during two hours, complete rest in the open air, where the children must keep absolutely quiet, 3 p. m. tea, or rather milk, or chocolate, with bread. After tea, games or sports, walks, or any kind of exercise in the open air, whenever weather permits, children wear bathing suits. On bad and rainy days, lessons and preparation from 4:30 p. m. to 6 p. m.

6 p. m. dinner (macaroni, rice, etc., stewed fruit, milk). After dinner, complete toilet, and bed at 7 p. m. Lights are out at 8 p. m. This is the program for the trained child. On arrival,



Heliotherapy in Dr. Rollier's institutions. Clinique "Les Frères," Leysin; a children's balcony for the sun-cure.

each child is put to bed for three days, and then, depending on his condition, gradually trained to the program given above.

As health is the most important consideration, lessons are reduced to two hours a day. Because the children are not overworked their application to their lessons is very good and their attention is willingly given to the subjects that are treated. Lessons are held with the sun on the children's bare backs whenever weather permits, and the action of solar rays produces muscular development and prevents lateral curvature of spine and stooping shoulders which are often contracted at school. Classes are held at some distance from the school, and the site chosen every day may depend on the weather or the subject of the lesson.

Much attention is given to natural studies. The

Sun treatment could easily be practiced in summer in most countries, and not alone on the beaches or the sea-side. It must not, however, be forgotten that it is not the hottest sun that is the most beneficial. The mid-day sun of July and August is too hot even for our well browned and trained patients at an altitude of 5,000 feet, and in countries where the air is less cool and bracing its effects would be enervating and even dangerous. In such places sun cure should be carried out early in the morning: the sunlight is then bright, but the intense heat is tempered by the coolness of the air. It must not be forgotten that, although a fresh air bath can be continued all day long without harm, a sunbath should rarely last longer than three hours at a time, and this only in cases trained to withstand it.



Open air school for boys, Leysin tuberculosis clinics.

children carry with them a very light folding-desk and chair which facilitates out-door classes. This system of lessons in the open air is not only applied in summer but also in winter when the sunshine has heated the atmosphere. It is no unusual sight to meet a file of boys on their skis, with their desks on their backs, on their way to some sheltered spot in the sunshine where they can have their lesson. Meanwhile, the class of girls is sitting on one of the balconies of the school, well exposed to the sun, each attired in a bathing suit.

This school in the sun has been in successful operation for the last twelve years. The application of its principles to the daily life in a more wide-spread manner would mean social regeneration.

It is pathetic to see children whose homes are often none too healthy, huddled in small, gloomy, ill-ventilated class rooms when the attractive countryside is left neglected, with all its health-giving and educational qualities. If the sun cure were more generally advocated, and the outdoor playgrounds of our schools in town and even in the country were used not only for a few minutes' recreation, but for lessons in the open air and sun whenever it is available, it is certain that hospitals and nursing homes would not be as crowded as they are.

Some people say that sanitation doesn't pay. Well, it doesn't pay doctors and grave-diggers, says the U. S. Public Health Service. Be sanitary; seek health before you need it.

TRAINING STATE HOSPITAL EMPLOYEES*

THE employees of a state hospital are almost as difficult and delicate to handle as the patients themselves. Their problem is not medical but social and educational. The way out will be found in a social and educational treatment.

No consideration of better standards in these institutions can overlook or minimize the importance of the ward employee nor can it be blind to the difficulty he presents. For with him very largely rests the welfare of the patient and the effectiveness of the ministrations of his physician. State hospitals are so well acquainted with the character and equipment of the average attendant, whether male or female, that it is not necessary to discuss this phase of the subject. The question is what can be done to improve him as an individual and as a group.

Wages and working conditions are fundamental. A very large per cent of those who enter the ward service of a state hospital have been attracted to it because the wages, taken with maintenance, appear to be better than those paid in the neighborhood in which, perhaps, they were born and have been reared. They have become restive under the isolation of their rural existence. The state hospital offers an alluring escape. But it requires only a few days within its walls to open their eyes to certain facts. The average beginning wage for female attendants is about the average wage paid for ordinary domestic service in the private family. The men soon discover that their wages are very much under the laborer's scale. Men and women on the ward often find themselves working twelve hours while the employees in the mechanical departments are either unionized or are working under union regulations, receiving union wages and serving union hours. This is particularly true in institutions located near large centers of population in states where organized labor is strong politically.

The new attendant does not long remain. The annual ward labor turnover is astonishing in its proportions.

The problem presented by the employees of the state hospital is one of the most difficult which confronts the hospital.

"Wages and working conditions are fundamental. . . ."

"To secure the qualifications that are needed to insure good treatment, the institution must acquire or build up a higher grade of intelligence. . . ."

"Better wage schedules will tempt into service a more competent class and will hold those who should be held. . . ."

"The social problems of the state hospital employee is vital. . . ."

"All classes of those who come into contact with patients require training which they can get no other place as satisfactorily as in the state hospital. . . ."

The employee question is not likely to be settled until the state and the institution recognize some of the unalterable and inescapable economic facts prevailing in civil employment and unmistakably operating upon and influencing state hospital labor.

To secure the qualifications that are needed upon wards to insure good treatment of patients and the carrying out of the orders and instructions of medical officers, the institution

must acquire or build up a higher grade of intelligence. In this a higher wage scale becomes essential at least on the levels above that of attendant.

Better wage schedules will tempt into the service a more competent class and will hold those who should be held but are now using it as a stepping stone to something more remunerative and more permanent.

Every great industrial or commercial enterprise has organized social service for its employees. Rest rooms, libraries, parks and gymnasiums for recreation have been established and numerous morale-building methods have been adopted. Trained social service workers are in charge. Especially among women employees is this service well conducted and appreciated. Private capital furnishes all this to a force of men and women who spend only a few hours a day at their work and have their own homes and their own means of recreation in the evenings and on holidays. In the state hospitals, the ward attendant lives in cramped, unsatisfactory quarters, often located on the ward. There is generally a barrier between the social caste of the state hospital and that of the community near by. The hospital, however, leaves its employees to their own devices and resources for recreation and social pleasures. If the private enterprise finds its investments in social service and recreation profitable or necessary or both, how much more beneficial would the state hospital find it? As the employee is handled in the average state hospital, there is offered him little incentive to ideals, little stimulus to ambition, little encouragement to loyalty to his job or devotion to his charge.

*This is the seventh of a series of articles on state institutions for the mentally ill which is being prepared under the direction of a special committee of the editorial board of THE MODERN HOSPITAL, in co-operation with the National Committee for Mental Hygiene and Mr. A. L. Bowen, former superintendent of charities of the department of public welfare of the State of Illinois.

The social problem of the state hospital employee is vital.

The educational phase is just as prominent. The training school in the state hospital has often failed because it has not been properly organized and supported. In a few states, however, where it has had a persistent and consistent attention and backing over a period of years, it is beginning to pay for itself and to afford a brighter prospect. On the whole, among administrators there is pessimism on this subject. The state hospital must train its own employees, after having first offered them an inducement to stay. It must supply inspiration to ambition and then satisfy that ambition by furnishing it an outlet through training which brings its own rewards.

While small retail establishments have their training course for clerks or send their employees to a school where they may learn how to perform the duty that serving the buying public imposes upon them, the state hospital with little compunction turns over its patients acute or chronic, it makes small difference, to men and women who have come up from the farms and small towns of the state with almost no education, and with no experience with human life. To them are entrusted the care of the sick and the training and employment of the so-called insane.

We get the service we may expect from such material. We overlook the lessons of private business and enterprise that one trained person is worth two untrained. Our state hospitals could well afford to pay higher wages for experienced and trained help; for less of it would be necessary.

Training must not be confined to nursing. All classes of those who come into contact with patients, require training which they can get no other place so satisfactorily as in the state hospital. Even the physician should enjoy the opportunity of a central psychopathic institute and hospital. Every physician in the state hospital service should be required to spend at this institute at least three months out of every two years, and representatives of the institute should visit the state hospitals with lectures, instruction and supervision and inspection of medical work.

Occupational therapy demands a large number of workers. Those in charge of this branch of hospital treatment must be educated. Their preliminary education must be high. Their special training must be of the very best. But their aids and workers on the wards may receive their training in the state hospital. Few of them have the preliminary schooling to enable them to enter civil schools for therapists. Still fewer have the

means to go to such schools. The hospital must give this training if it is to be had at all.

The nurses' training school, notwithstanding its ups and downs, throughout the country, is the only avenue through which to supply that which state hospital medical service so markedly lacks at this time.

Few Training Schools

A questionnaire to state hospitals of a number of the leading states brings back the sad information that training schools for nurses are rare, indeed. Some states have none at all or do not believe in them. Worse than that they do not even employ trained nurses on their acute mental wards or in the care of their physical sick. Various excuses are offered for this neglect. Among them is the failure of employees to register for training; another is the low education standard of attendants; another is the inability to pay the wages that trained nurses demand; another is that the graduate leaves the service as soon as she receives her diploma. None of these is valid. When we find employees failing to enter the training school we may expect to find something wrong at the head of the institution. When it is right, when it is interested in its employees, when it believes in the school, when it has the enthusiasm and the energy to make things move, the training school thrives. Graduates will not leave the service if the service will use them. In Illinois, for instance, the eight state hospital training schools reached the point before the war of graduating 100 nurses each year. The course was a two year course. It did not lead to registration and was not credited to the pupil if she determined later to qualify for registration. Yet the schools reached that prosperity represented by more than one hundred graduates each spring and exercised a positive, uplifting influence upon general morale through all the employee classes.

Immediately upon passing their examination, their civil service classification was raised one point and their wages were increased by five dollars per month. They were then assigned to the more responsible positions and the higher ranks were filled from them. In the course of a few years enough of these graduates had completed, in registered training schools, the three years course required for registration, to furnish each of the state charitable institutions a registered chief nurse.

The graduates who have completed a three years' course of training in the state hospital training schools of New York, part of which (10 months) is in an affiliated general hospital cover-

ing special instruction and training in pediatrics and surgery which most state hospitals are ill-fitted to give, are eligible for registration. New York also has a two years' nurses training school course graduates of which are not eligible for state registration. Admission to the two and three year courses respectively, is determined on the basis of preliminary education, a candidate for the three years' course being required to have had at least one year of high school education or its equivalent. Massachusetts has much the same regulations and the graduates of its three year course are also eligible for registration. These states, however, have not attained this eminence by considering the difficulties or magnifying the impossibilities of the schools. The fact that schools have succeeded where they have been given a chance is a positive answer to every quibble or objection to them.

In this connection, it should be observed that the American Psychiatric Association has established a minimum standard for state hospital training schools for nurses which will, of course, be applicable to the whole country. The association plans to place upon an accredited list all state hospital training schools meeting the minimum standards, an action which will undoubtedly do much to elevate the course of instruction given in these institutions.

An attendant, having gone to a training school, is undoubtedly better prepared for her task than one who has not had this opportunity. When she becomes a nurse, she is an asset to the public, whether she remains in the state hospital or enters a civil hospital or engages in private practice.

The state hospital may go even further in this matter of training. For those with low educational qualifications but good ideals and an ambition, it may make arrangements for grade or even high school class work. This offer will not produce results at once but in the course of years, it will become one of the principal influences drawing young men and women into the state hospital.

Social and Educational Centers

All social and educational work for employees in a state hospital implies a center. Detached buildings for women, for single men and for married couples are as essential today to good service to the patient as modern ward buildings and special facilities for the various types of physical and mental sufferers. Such a building should be provided with those things which are necessary to teaching and to recreation; for instance, class rooms, demonstration rooms, gymnasium, an as-

sembly hall for plays, entertainments and dances; in brief, it should be a club house with the additional facilities for education and training. Employees who do not reside within the institution are not so much of a problem. They generally have their own homes or their own connections in the community outside. But even they should be tied to the institution by social interests. They should be made to feel an obligation to those who live within. The home and social center will inspire that obligation.

Medical men are entitled to their own domestic firesides where they may enjoy family life and bring up their children as children should be reared. This can be done very easily and very effectively by the state's erecting cottages for their accommodation. Such officers should feel freedom. They should not neglect their responsibility for the social and moral welfare of other grades of employees; they should have a social tie with the institution, but they are also entitled to a home.

In summary, the state hospital, so far as its employees are concerned, should consider itself an entity, a community in itself, obligated to furnish them not only a wage that is respectable and comparable with wages paid in civil life for similar service, but also to provide comfortable quarters, a good table, social environments, that are enjoyable and uplifting, to inspire its young men and women to better standards and finally to provide the means to attain that training and education which is valuable alike to them and to their service.

MORE FRAUDULENT SCHEMERS IN DISGUISE

A few months ago a man and woman, the latter alleging to be a graduate nurse of a Michigan school, made arrangements with a hospital in Texas to secure advertising from concerns with which the hospital did business to place on bill heads and tablet covers promising to give the stationery to the hospital free of charge. The ads were secured, but that was the end of the bargain, according to word from the superintendent of the hospital.

The superintendent of the Texas hospital wishes to warn other hospitals against any fraud of that nature.

HOSPITAL BED CAPACITY OF NEW YORK CITY

Study of the files of the Division of Institutional Inspection, New York City, show that there are 216 hospitals in greater New York with a bed capacity of 44,793. Twenty-five of the hospitals are public, 121 semi-private, and seventy private. The public hospitals have 24,288; the semi-private 18,767; and the private 1,738 beds. Manhattan has more hospital beds than Brooklyn, Bronx, Queens, and Richmond combined.—*The Nation's Health*.

ELIMINATING NOISE FROM THE HOSPITAL

BY HAROLD J. SEYMOUR, TENAFLY, NEW JERSEY.

TO THE eyes of a decade ago, the new hospital of today, built on modern specifications, would seem perfection itself. Every convenience, all possible cleanliness, resistance to fire, plenty of light, scientific heating, structural soundness and architectural beauty; all these things are there, to a degree of refinement. One thing, as a rule, is lacking, and curiously enough, it is a product of development along other lines, and that is immunity to noise.

A construction engineer stood with me in the corridor of a certain maternity hospital in New York City. The sounds that came to our ears were many and varied; the general undefinable noises of the corridor, a distant but sharp clatter of dishes, a brief jangle of the telephone bell, a street car passing outside, a cart turning in the area, and down the corridor, a half stifled moan.

It was after four in the afternoon, when things are dull in hospitals, and it was not difficult to imagine lying there, and listening.

"The wall of this corridor," the engineer was saying, "is well built. It offers a high resistance to fire, is economically erected, and is finished in such a way that the porters find it easy to clean. The wall, and the ceiling too, are hard, smooth, and bare. This quality offers safety, and cleanliness, but it also offers an exceedingly efficient sounding board. If the builders had wanted to design a place where noises would ring loud and long, they couldn't have done better than they have here."

Music Found Effective

Noise is distracting even to the well. Everybody knows that. And there is evidence enough that the elimination of noise has important therapeutic aspects. Certain hospitals are trying to make really pleasing the sounds that come to the ears of their patients. The phonograph installed in the wards of the New York Nursery & Child's Hospital, the radio apparatus in place at Presbyterian, in New York; these are interesting instances of what is being done to make sound attractive. These institutions have gone a step farther than the elimination of noise. They are providing music.

The elimination of noise involves a great deal more than the stuffing of partitions and the laying of rubber mats. It involves the study of acoustics, which is held to be one of the most difficult and intricate subjects in the whole field of higher mathematics. The fall of a tray of

dishes, as such, is simple enough. Represented however, as a mathematical equation, it is something else again. As pure science, acoustics is a field for none but master minds.

The general principles, however, are not so trying, and should prove interesting to all who have hopes for the silent hospital.

The most common source of trouble is reverberation, due to hard, smooth, and bare walls and ceilings. In the technical sense, reverberation signifies the prolongation of a sound by its multiple reflection from surface to surface before its energy is sufficiently absorbed to become inaudible. Since the average sound must be reduced approximately to one-millionth of its original intensity before it reaches the limit of audibility, and since such a sound once produced in a bare room or corridor loses but from two to four per cent of its energy at each reflection, it is evident that such a sound must be reflected several hundred times before it becomes inaudible. Since this process consumes time, owing to the finite velocity of propagation, the sound is prolonged for a period of several seconds after the original source has ceased to emit energy.

It is this reverberation, particularly of high-pitched noises, that has been found to be most distracting and tiresome in hospitals. It is only by the unconscious expenditure of nervous energy, in fact, that anyone can get "accustomed" to such noises.

Such progress as has been made toward elimination is due to the researches of the late Prof. Wallace C. Sabine, of Harvard, who was recognized everywhere as a world authority on acoustics, and who performed notable services in France, during the World War, in the direction of locating enemy guns by their sound.

Sabine's research, and that which has followed, has produced a perforated oil-cloth ceiling, with an overlying layer of felt. This felt, it has been found, eliminates reverberation, and absorbs high-pitched noises in direct proportion to their wave lengths. The effect produced is substantially the same as though all walls were removed, and the hospital ward were in the open air, out in a field.

A certain tone on a violin, long enough sustained, has been credited with the power to destroy the Brooklyn bridge. That is the field of rhythm. In the field of acoustics, with the problem of noise and reverberation, rests a power less spectacular but far more important; the power to bring to the sick the peace that comes with quiet.

THE PRESENT STATUS OF HOSPITALS IN GERMANY

BY MANAGING DIRECTOR P. WEINSTOCK, STETTIN, GERMANY.

GERMAN hospital work developed extraordinarily in the forty-five years that lay between the war of 1870 and that of 1914. Small almshouses, aided by legislation and German science, are now important institutions of welfare. This development is partly due to the success of great surgeons and clinical physicians, such as Robert Koch, Ehrlich, Helmholtz and others whose works are too well known to mention. The number of beds for the sick in public institutions, amounting to about 130,000 in 1870, increased to 700,000 in 1914 and is said to be about 600,000 today, in spite of the considerable loss of territory.

This great progress in hospital work was only possible through Germany's development since 1870 from an agricultural into an industrial state, a development which was supported by social legislation. The law of the residence of support, insurance against sickness, invalidity, old age and accident, and finally the insurance for clerks and similar regulations, are the bases for the present hospital situation.

Men with outstanding ability have been named superintendents and chiefs of medical service, capable physicians have been trained, and most of the German hospitals have risen to institutions of scientific importance. Thus, old prejudices against hospital treatment have been overcome and they have been replaced not only by a general confidence in hospitals, but also by the firm belief that a sick person is best taken care of within the hospital.

The welfare of hospital work has been favorably influenced by the extension of compulsory health insurance which today embraces almost all salaried manual and brain workers. The insurance to some extent includes the family of the insured and will, in the near future, be enforced on the whole population.

Thus, before the outbreak of the World War, every promise was given of great progress in the German hospitals. Institutions were established, like the Berlin Rudolf Virchow Hospital in

German hospitals, which before the World War gave promise of great development, are now in dire straits. Many private institutions have been forced by economic pressure to close their doors; others have been taken over by local governments and even then must be run on a meager budget. The steadily diminishing value of the mark and the social revolution following the war both have contributed to the decline of hospital service. Union labor, with its accompanying eight-hour day, has invaded almost every department of hospitals and has added to the magnitude of their financial burden. The present status is critical and one which calls for action to reinstate the hospitals of Germany.

1906 with nearly 3,000 beds, which were models in construction and in scientific output; furthermore, their furnishings, equipment and staff surpassed all earlier institutions in the country.

Not only has the capital a model hospital, but there are similar institutions in many of the big cities like Düsseldorf and Köln, the latter town having erected academies for practical medicine in connection with its hos-

pital. The institutions in München-Schwabing, Leipzig-St. Georg, Frankfurt and the quite recent one in Mannheim are first class buildings; each building being unique and yet built to satisfy the demand of the highest service.

Even towns with smaller population, country towns and counties did not lag far behind, so that we are really justified in talking of general competition in building hospitals.

Cure and Care Institute

A considerable number of lunatic asylums were also newly erected, and are now known as "Cure and Care Institutes" in accordance with more modern ideas. Generally they are combined with a large farm to enable the transition of patients from indoor care to outdoor care and outdoor occupation.

From a merely architectural standpoint the hospitals, are structures in keeping with their purpose; as regards their interior, moreover they comply with almost every modern demand of the physician or administrator regarding plan of construction, hygiene, equipment and technical safety.

All are provided with operating rooms which have good light and modern heating and ventilation. There is not one among the big hospitals that lacks a prosector's laboratory. In the last few years, special interest has been paid to the installation of laboratories for bacteriology and serology as well as x-ray laboratories, equipped with the latest machinery and under the supervision of a special manager. X-ray treatment, radium and artificial heliotherapy, diathermy and Finsen

light have become resources which the doctor will never dispense with. Air and sun baths, ample bathroom space, massage, mechanotherapy in special buildings which contain all kinds of appliances, are provided.

Furthermore, problems of administration have not been overlooked. The kitchen and laundry perhaps should be mentioned first. In the larger hospitals they are mostly installed in a special domestic building. Nowadays, the doctors endeavor to organize special diet and milk kitchen, under the management of a special trained dietitian. It is, of course, understood that all necessary devices are provided for domestic work.

Some Hospitals Have Farms

Every administrator is much concerned about the purchase of milk and other agricultural products. Many institutions have made contracts with big farms in the neighborhood for the delivery of the best milk from herds inspected and controlled by veterinary surgeons, and of other agricultural products. Some cities have purchased farms in order to supply their hospitals with their own products. Many German hospitals which possess sufficient land have adopted a kind of self-sustaining system by breeding and rearing pigs, thus providing pork for their staff and the patients, the animals being fed on hospital refuse. Experiences of this kind repeatedly have produced excellent results; besides, hospitals often keep chickens and bees and grow their own vegetables.

All of the larger and more important hospitals have their own laundries which take care of the entire washing of the institutions themselves and the staff; modern machinery is used and water is often purified by iron and chalk.

During the war and more recently, the shortage of fats caused many difficulties. Experiments of the chemical industry to create substitutes seem to promise results.

Quite a few institutions receive only third class patients (patients insured against sickness and charity patients), but many have reserved beds for first and second class patients. For these, of course, a higher charge is made, for the most part one and one-half or twice the charge made for third class patients, besides an extra charge for doctor's fee which is not required of third class patients.

The idea is to enable those of the middle class to secure first class hospital work from the standpoint of medical science; more especially since the middle class has to contribute in the form of taxes to hospital maintenance. But, on the other hand, doctors on the different wards are allowed to continue the treatment of their own patients

when it becomes necessary to send them to the hospital.

Before the war, first and second class patients received the same quality of food as the doctors. Second class food was given to the nurses and better class employes and less expensive food to third class patients and servants. The revolution, however, tried to introduce a standard food (patients under diet excepted of course) for all the staff and the sick and many German hospitals have adopted this system.

The external relationships of hospitals, from the administrative as well as domestic standpoints, have been changed neither by war nor by revolution. The regulations of the state department still classify hospitals of more than 50 beds as of medium size and those with more than 150 beds as large hospitals. Every new building or architectural alteration has to be approved by the government.

Municipal regulations concerning the founding, building and equipment of hospitals have been in existence since 1895, and were made more stringent in 1911. These are firmly imposed upon owners, builders and responsible managers of hospitals, institutions for the treatment and care of sick (lunatic asylums), maternity hospitals and nurseries.

Have Modified Building Code

Since no new building had been undertaken in consequence of the Four Year's World War and the increasing expenses for building materials since 1914, the government in 1920 amended the building law so that it is less stringent and allows more economical construction. Very important is the reduction of the average air space or floor requirement for each patient, it being lowered to 35 cbm. (46.67 cubic yards) or 7.5 qm. (9 square yards).

There is required in every hospital a person responsible for the general hospital service and for hygienic measures. The smaller hospitals, generally, have put this rule into practice by naming one of the doctors as director of medical and of administrative work. But larger hospitals, as a rule, have charged one of the doctors of the wards with the management of medical affairs, while another administrator for domestic affairs is directly responsible to the corporation that owns the hospital.

Next to the head doctor, who generally is also director of one of the wards, are the directors of the various wards, each of them working independently and upon their own responsibility. They have to supervise a certain number of assistants, about one assistant to each 40 or 50 patients.

Nurses in German hospitals, as a rule, are sisters. Convents send the sisters to private as well as public Catholic hospitals, while nurses of Protestant institutions belong to an order of deaconesses. Hospitals in cities often have their own nurses' associations. Some hospitals have the nurses sent to them, mostly under a contract, by various orders of deaconesses, the Red Cross, and other organizations. Nurses belonging to the better educated middle class are generally organized in associations of deaconesses or the Red Cross. Those who do nursing work in hospitals as a profession and the rest of the hospital help are, as a rule, organized in deaconesses' unions or independent unions.

"Cure and care institutions" engage nurses only for the women's wards and use male attendants for the men's wards. With the exception of special hospitals for venereal diseases, male attendants only are employed to assist nurses in the wards for men patients.

Men and women attendants are trained by the hospital medical staff in schools attached to large hospitals. They have to take an examination after two years' training—200 lessons—which, successfully passed, entitles them to a state diploma for nurses.

Eight-Hour Day Creates Hardship

The revolution created the eight-hour day for the trade. Though it is generally admitted that a hospital enterprise cannot be considered a trade, the forty-eight hour work week has been introduced into hospitals by means of a contract between hospital and employees, even for the uninterrupted service. Experience, however, shows that neither the eight-hour day nor uninterrupted service can be applied to hospitals. Owing to special conditions in hospitals, the eight-hour day often means that employees are on duty but are not actually working except for occasional jobs. A strict interpretation of the eight-hour day has resulted in an immense increase of staff. In some hospitals and at certain seasons, as many employees as patients can be found. This dilemma added to the extraordinary rise of prices, and many institutions will soon be forced to close, if no change can be made. A special law to settle the working hour problem is now in preparation. It is supposed to fix hours for nurses and hospital help individually. At the present time, many are skeptical as to whether the law will satisfy the just demands of hospitals. Communities, doctors and administrators as well as government and unions, are trying hard to find a solution.

Unfortunately, these bad times have not only stopped the progress of the administrative service

in hospitals, but they have also prevented intensive research work. Useful studies can only be done if the work of laboratories, x-rays and pathological institutions is not endangered. This fact should not be overlooked by those interested in hospitals.

Rates Rise With Cost of Living

Another difficult problem arises as to the regulation of hospital charges, in relation to the abruptly increasing cost of living. Every time prices and wages increase, the administration, especially in municipal hospitals, faces a great task. Many preliminaries are necessary to prove that the proposed increase of hospital charges is indeed urgent. In cases where a mutual board of arbitration has been established, conferences have to be held first with the other hospitals and clinics of the town, later with the associations that carry sick benefit insurance, again with the municipal board of hospitals and finally in the hospital itself.

Much bargaining and disputing go on in these conferences and political motives are involved. The associations for sick benefit insurance try their utmost to keep hospital charges low, although their financial condition, at the present, is very good. The radicals still endeavor to develop the program of the social-democrats which demands free treatment in hospitals. They have, however, already admitted the fact that the present situation of the country does not permit the carrying out of such a program.

It is generally believed that these difficulties will be solved by applying the sliding scale. In this scheme whether the given base is the index of living costs issued by the state or some other source, the daily wages of unskilled municipal workers, or the maintenance costs of the hospitals, all charges would be regulated accordingly every month or every three months.

To work out the costs monthly or quarterly will, of course, cause considerable office work and will probably induce the associations of obligatory health insurance to ask for the hospital books in order to control the calculation of costs. The other systems of sliding scale will permit an easier way of fixing charges.

At any rate, application of the sliding scale system in hospitals is sure to come in time, and the life assurance associations will have to suffer the adjustment of hospital prices to the diminished buying power of money. At the present, however, they reply to every increase of prices by sending less patients to hospitals, the result being that almost all city hospitals have a large per cent of empty beds and the beds taken are as a rule occupied by patients with grave diseases necessitat-

ing operation or surgical treatment. To put an end to this conflict, directors and administrators of hospitals are back of an amendment of the health insurance law which will give to the before mentioned associations the right of sending patients to hospitals without compelling them to do so. These efforts will probably succeed.

Altogether different is the situation of the "cure and care institutions," (lunatic asylums). While the community has to take care of the sick, the province has to provide for lunatics. During the war, the lunatic asylums were less crowded; many of the older inmates died of undernourishment; and prohibition and many other circumstances diminished the number of patients. Nowadays, a slow increase of patients continues, evidently due to the free trade of alcohol.

Social Service Work Growing

Social service used to be less cultivated in hospitals. Very early, women's organizations tried sometimes to take care of hospital patients and the members of their families. This voluntary charity, however, is now insufficient. Only a professional social worker will succeed in satisfying the demands of present social conditions.

Often enough, the affairs of the patients have to be settled, with their own people or their employers or with public offices, concerning taxes, judicial affairs, charity, health insurance and so on. The problems of providing for the children, paying the rent of their flat, etc., trouble the sick person. Having these questions satisfactorily settled will favorably influence the recovery of the patient.

Today, special social workers see to the sick person of a certain hospital only or, if employed by the welfare department, they take care of the patients of all institutions in town. The field grows daily and is very much appreciated by the patients.

This success has created a desire to extend social service by employing kindergarten nurses in hospitals for children and in the children's ward of city hospitals. The nurses teach and occupy children who have to spend many months in a hospital. Different methods have been tried by the hospitals to solve this highly difficult problem. Though only a few experiences of this kind have as yet been published, we may say that this service will be generally introduced and will be of success.

We further draw attention to the fact that all the larger hospitals and even many of medium capacity own pharmacies, the state concession having been obtained under the condition that they furnish only the hospital supply. This means

a considerable economy for the hospital and permits a prompt medicine service at day or night, only those of high capacities being in charge of the pharmacy. The pharmacists make food tests as well and examine all medical goods purchased as to their quality and conformity to state regulations.

Financial Difficulties Are Serious

The present condition of German hospitals is extremely bad. The continual money depreciation, often setting in abruptly, increases the expenses of the institutions to a degree that makes it impossible to observe the limits of the budget or to calculate expense beforehand. The uncertainty of monetary conditions and the steady changing of the value of the mark makes a study of the economic situation unprofitable. Prices for goods remain always subject to change and, often enough, goods are not available. Private hospitals for public welfare are even worse off, and many have already been forced to close or were taken over by the city. Their expenses have surpassed the revenues considerably and, on the other hand, their regular subsidies and collections are no longer sufficient. Many of these institutions used to cover their expenses with interest on bonds, but with the present depreciation, the interest comes far from covering their expenses.

When the private institutions for public welfare have no longer means of existence, the local administration has to take them over—this having frequently happened—for in Germany local communities usually provide the funds for hospitals. The communities also have financial difficulties in furnishing the equipment for health service.

The average building expenses of one sick bed in a hospital of medium capacity (no interior equipment included) amounted in 1913 to about 7,000 to 9,000 marks, and they are now almost 300,000 marks.

The government recognizes the poverty of hospitals, and the department of welfare that supervises many hospitals in addition to the state hospitals is always trying to find means to help the miserable situation. It has been repeatedly discussed with experts what measures are necessary to better the conditions of hospitals. Among these experts are to be found representatives of the Association of Hospital Administrators. This association has as its aims the progress of hospital service and the training of its members, furthering these objects by an annual meeting and by publication of a magazine for hospitals. It discusses in articles and speeches all hospital affairs, such as laws, administration and domestic and in-

dustrial affairs. Last year's meeting was held in Wiesbaden in July. Hospital representatives from all parts of the country were present seeking information and advice concerning many practical problems. Government officials attended the meeting and also hospital administrators from Czecho-Slovakia and representatives of the department of health in Switzerland. A similar organization was founded in 1922 by the head doctors of hospitals. They also discuss domestic problems in their annual meetings. The assisting doctors also organized after the war. The object of their organization is to defend the economic interests of the members. In addition to these organizations there exists the Leipzig association of doctors.

Entire Personnel is Organized

While it was hardly worth while, before the war, to mention the few existing organizations of the hospital staff, we find today almost the entire hospital personnel organized. Protestant nurses belong to nurses' associations and the Catholic nurses to convents. The nurses of large hospitals, however, with some of the independent nurses' unions and most of the nurses' help and servants, are members of the municipal and state workers' union.

The revolution was followed by an almost ceaseless organization of employees in public service and in industry. The organizations succeeded in a general adaptation of labor contracts. Their way of settling labor conditions including wages has greatly influenced hospitals.

The influence of the newly established workshop council law was even greater though it is not fully employed for hospitals, being specially arranged for industry. But at any rate, the hospital employee has the right of cooperation in dealing with personnel questions. This rule started by causing much trouble for the employees councils, not fully grasping the meaning of the law, endeavored to meddle with questions which they are not entitled to decide or, at least, not as far as they want to.

We hope to have shown that the hospitals are influenced by many and various factors. As soon as we succeed in readjusting German economics, the hospitals will again be able to develop all their noble activities. We are far from having recovered from the war's injuries. A successful campaign against undernutrition and its consequence, tuberculosis, against the spreading of venereal diseases which increase the number of lunatics, and the other evils brought by the war, is only possible by means of institutions. We should, therefore, instead of diminishing the number of hospitals, speak for their extension and

healthy development. This is the object and the will of all interested persons and corporations.

All that has been said will show clearly that the public hospitals play a useful and important role in the life of the population, especially in the life of the workmen in big cities. They not only strengthen public health but they also instruct the people. The fact that German hospitals can no longer serve these ends will not only hinder scientific progress but will harm the whole population. Public hospitals in Berlin admit about 200,000 patients every year. This figure will doubtless show the significance of their social contacts and their importance in public life. "Hospitals in need" is not only a standard phrase but it has become a bitter truth for us. The financial distress of communities will, of course, influence the hospital budget, but hospitals should continue to work on the same scale as before for the sake of commonwealth. Their existence, their supplies and equipment, and new inventions in the medical field, must not be cut short. The welfare of the patients should be the margin for hospital economy. All responsible doctors and administrators should do their utmost to regain normal conditions in hospitals. The present increase of living costs is, of course, beyond our power, but every effort should be put forward to make hospital work more profitable. Government aid cannot be dispensed with; this assistance must be given by reducing taxes and by considering hospital conditions when fixing their working hours. At present, it will be our first duty to try to keep German hospitals up to the standard they hold now in science; they must not be allowed to degrade into almshouses. In the present time of misery, the hard-gained confidence of the population must be kept intact and must become even more and more firm.

To serve this purpose is the first aim of hospital executives, organized in the Association of Hospital Administrators and of their official publication.

THE HOSPITAL ASPECT OF SOCIAL SERVICE

"I predict that in ten years, yes, five years, it will have become one of the most popular and most essential departments of hospital administration throughout our national institutions. The proper place for social service to begin in a hospital is at the front door upon the admission of the patient and the proper place for it to end is at the same front door upon the patient's discharge. We are prone to forget the term, the definition, of the words social service, which is the rebuilding, the relieving, and the removing the causes of distress. Bear in mind not alone the causes of disease but the rebuilding, the relieving and the removing the causes of distress. That is important."—Edgar Charles Hayhow, *Hospital Social Service*, May, 1923.



The MODERN HOSPITAL

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TEN YEARS' WORK FOR HOSPITAL BETTERMENT

WITH this number THE MODERN HOSPITAL begins its second decade of service.

Long before the first issue was published, in September, 1913, those responsible for this magazine had formulated well defined objectives and policies in the interests of the field to which their efforts were dedicated. They recognized the responsibilities of journalistic leadership in this professional and technical field, and they realized that success would follow only in proportion as the magazine provided authoritative information, stimulus and inspiration for better work and broader development on the part of those engaged in the institutional care of the sick. Their purpose was serious and constructive.

Some hint of what was in the minds of those who created this magazine is given in the following clause taken from the leading editorial of the first issue—"if through its efforts there shall come a higher order of service to the sick and suffering everywhere their highest ambitions will have been achieved."

It is for others to say how large a part THE MODERN HOSPITAL has taken in the leadership of hospital affairs and what have been its contributions to the betterment of hospital service during this ten year period. Much of the heavy toll of thought, time and effort during this first decade has been directed to the building of sound foundations for the magazine; its work has been largely below the line of vision so that the superstructure developed in future decades would be soundly anchored.

During the period just completed, this publication has seen the hospital thoroughly established in popular esteem and good will as a vitally important institution, deep rooted in the family and civic life of the American people and today witnesses the constant extension of its ministrations as rapidly as funds are available.

But what of the coming decade? Additional hospitals must be provided in communities which lack hospitals altogether or where the ratio of hospital beds to the population is low. There is a pressing need for hospital facilities for people of moderate means. The development of the out-patient department as a preventive as well as a corrective agency must be quickened in view of the ever increasing emphasis being placed on preventive work, as evidenced, for example, by the country-wide interest in periodical medical examinations. Educational facilities must be provided right soon for the thoroughgoing training of more hospital superintendents. The scope of hospital standardization, or betterment, must be enlarged.

The planning and architecture of hospitals, especially the small ones, stand in dire need of improvement. A closer coordination of the hospital with the community it serves would be highly desirable. Social service and the special therapies call for more general adoption. Greater facilities for the care and treatment of chronic cases is imperative. Hospitals need to adopt more effective methods of financing, both as to capital funds and maintenance. The medical care of patients in our state hospitals must be placed on a higher level. The services of the national hospital bureaus and associations need to be enlarged and strengthened.

To the attainment of these and other unnamed, though equally important, objectives, THE MODERN HOSPITAL pledges its best efforts during the coming decade.

THE SITUATION AS TO MENTAL DISEASE

DR. C. FLOYD HAVILAND, chairman of the New York State Hospital Commission, says that there are now forty-one thousand mental patients under the care of that state. New admissions run from eight to nine thousand a year. On June first of this year, he estimated the overcrowding in the New York state hospitals at 7,247 beds.

On July first, the Illinois Department of Public Welfare announced the population of its state hospitals and colonies for feeble-minded to be 22,021, against 21,233 on July first, 1922; 20,279 on July first, 1921 and 19,478 on July first, 1920. The net increase in the three years had been 2,543 of which 1,850 represented the gain in the state hospitals alone.

Every state that attempts to make provision in state institutions for all its mentally ill reports similar rapid and marked increase in the burden of the mental and nervous diseases.

Meanwhile no state has made adequate provision to house this increase. New buildings have absorbed only a small per cent of it. The rest have been crowded into the already jammed and occupied old wards. Quarters once used for recreation, for classes, as sitting rooms and amusement halls have been converted into dormitories.

Appeals for money with which to improve and enlarge housing facilities seem to have fallen upon deaf ears. Legislatures and executives, dismayed in the presence of this problem, have disposed of it by passing it on to their successors. The voter seems to be no more inclined to meet the situation squarely. New Jersey, by popular vote, disapproved a bond issue for new quarters

and new institutions to insure these sufferers humane living accommodations. New York was startled from its complacency by the tragedy at the Manhattan State Hospital. Emergency appropriations by the legislature followed providing some relief. But how great the need is may be understood only by reading the arguments submitted in support of a fifty million dollar bond issue with which to rebuild, enlarge and expand the mental hospitals of that state. This bond issue awaits the decision of a popular referendum.

Dr. Haviland is quoted as saying, "throughout the United States, there are 250,000 hospital beds for the insane, which is in excess of the number of beds of all the general hospitals in the country. There are approximately 50,000 admissions a year. One single form of mental disease, dementia praecox, numbers twice as many cases in hospitals as there are cases of tuberculosis in hospitals in the United States. The actual cost of the care of the insane in the United States amounts to about \$75,000,000 a year and in this state for the last few years it has run from ten to thirteen millions."

These facts teach lessons. The states are falling so far behind reasonable demands for housing for these classes of the sick that they never can catch up by the exercise of ordinary means. It is already practically impossible for some states to eliminate the overcrowding in state hospitals by current appropriations after the manner of the past.

These facts also indicate very plainly that both the public and private agencies have not been and are not giving to these diseases the attention they deserve by reason of their immense proportions and their economic losses and social distress. The state is not only slothful in furnishing humane housing but it is also slothful in providing the facilities for prevention outside the hospital and treatment within, which medical and hospital men by experience have determined to be effective. The country has been aroused rather easily to the menace of tuberculosis, cancer, diabetes and other physical diseases. Silence and social service have combined successfully with the general public to stop their ravages. Equally good results could be expected from similar attention to the mental and nervous diseases.

The state has assumed full authority over those suffering from mental and nervous diseases. It has accepted all the responsibility of their care and treatment. It has been the policy of the state to adopt those methods in respect to these diseases, which private agencies are able to demonstrate to be effective after many years of painful and patient experimentation.

All of these agencies are restricted by small funds and few facilities. Those who give to public welfare objects have justly complained that in the realm of mental hygiene, the state should do the experimenting and research inasmuch as it has assumed so large a function in it.

In view of this attitude of the private citizen, which has justice in it, and of the situation and condition in the state hospitals, the question may fairly be asked, has not the time come when the state should abandon its traditional policy of watchfully waiting upon private initiative, in favor of an aggressive campaign of popular education in the prevention and treatment of mental disease? Should it not, with its own resources, which are ample, take advantage of recognized methods and prove out theories to decrease mental sickness at its source?

PUBLICITY VALUE OF VISITORS

GENERALLY speaking, hospitals are notably remiss in their effort to acquaint the general public with their work and their methods of doing it. There are some, however, (and their number is gradually increasing) who are making a consistent, if not always a thoroughly intelligent, effort at publicity. To encourage and guide these and inspire others to take the public judiciously into their confidence, THE MODERN HOSPITAL has been fortunate in getting Mr. Ralph Welles Keeler, counsellor in publicity of the Board of Hospitals and Homes of the Methodist Episcopal Church, to write a series of articles on hospital publicity of which the fifth, devoted to a discussion of publicity through visitation, appears on page 249 of this issue.

We have had occasion to visit scores of hospitals; but, with one or two exceptions, we have seen none make the visits of the relatives and friends of patients serve the larger purpose of giving them a fuller, if not a more accurate, knowledge of its work. And yet what a splendid opportunity these visits afford to invite an inspection of some interesting part of the hospital and to distribute some compelling, well illustrated, printed matter that will give visitors a knowledge of the hospital as a whole, which would stimulate their interest or, perchance, dispel their fears and misconceptions.

To give the hospital publicity in this manner will, of course, demand some careful planning and may involve some additional expense, but we believe the expenditure of time and money will be abundantly repaid in bringing about a better understanding of the hospital and building up goodwill in the community—a priceless asset to any hospital.

THE SMALL HOSPITAL LABORATORY

SOMEONE has said that the scope and character of its laboratory work is the measure of a hospital's efficiency. As there are a number of factors that must be taken into consideration in measuring the efficiency of a hospital, this broad statement is undoubtedly open to debate. But that the scope and character of the laboratory work of a hospital is *indicative* of its efficiency, none will question. In the light of modern knowledge, no hospital can do its work effectively unless it has a well equipped laboratory and uses it intelligently. Relatively speaking, this applies quite as much to the small hospitals as to the larger ones, for no hospital, however small, can justly claim the name of "hospital" unless it has and uses the facilities which a good laboratory affords for making indicated tests and confirming clinical findings.

That the laboratory of even the small hospital, if properly equipped and manned, can do a splendid piece of work is evident from the account by Dr. McNamara (page 233 of this issue) of the development of the laboratory work of the Finley Hospital, Dubuque, Iowa. This development was not without its period of stress and storm. Nevertheless, it is a development that lies within the reach of every hospital provided its laboratory, as Dr. McNamara so aptly points out, wins the support of the directors and physicians interested, in the hospital, and is placed in charge of the right type of pathologist as its inspiring and directing head.

SERVICE IN ADVERTISING

THE advertising columns of THE MODERN HOSPITAL reflect a well-defined, thoroughly established policy of service to hospitals. In the application of this policy the magazine restricts the advertisements it accepts to advertisements of construction material, equipment and supplies that naturally belong to the hospital field. Moreover, it deliberately discourages the use of its columns by concerns that do not thoroughly understand what the hospital needs, in order to render its highly professional services efficiently. Consequently the advertising section of THE MODERN HOSPITAL has become a directory of reliable business firms that, so far as their products are concerned, thoroughly understand the peculiar needs of the hospital.

In order to maintain its advertising columns on a high level of service this magazine should greatly appreciate hearing from you if in your dealings with the concerns that advertise in these columns you do not receive the service the advertisements lead you to believe you will receive.

COMMENTS ON OUR TENTH ANNIVERSARY

ACTIVE FORCE IN HOSPITAL DEVELOPMENT

To the Editor:—

The hospital field has developed more in the past ten years than ever before and THE MODERN HOSPITAL has been an outstanding figure in this development.

While the staff may feel proud of its progress in the past, there is a greater work to do in the future. There are three great problems that must receive serious attention. First, to educate the people to support the hospital, for hospitals can develop only as fast as the community will allow them. Communities should be made to feel that next to the church and the school comes the hospital.

Second, the nursing question is a serious one and unless some united national action is taken to settle the many difficulties, large as well as small, hospitals will be more handicapped in their work in caring for the sick than they now are. There must be radical changes in the next ten years if we are going to continue our work on the high standards for which we are striving.

Third, the question of securing interns for large as well as small hospitals will become more serious and, while some definite steps are being taken, the problem should be kept alive until we get action. Even now patients in some hospitals are suffering from inadequate medical attention because of the lack of sufficient interns.

THE MODERN HOSPITAL has a future service, and I wish it success.

ASA S. BACON

President, American Hospital Association.

LEADER, GUIDE AND MEDIUM OF EXCHANGE

To the Editor:—

I congratulate THE MODERN HOSPITAL on having passed through its first decade in a continuously healthy growing and developing state. Though yet in its infancy, it has reached a maturity corresponding almost to that of adult age. During these ten years it has much to its credit in contributions made to the hospital field of America. It has added stimulus and invaluable information of a sound practical nature.

The hospital field, as we all know, is an ever enlarging one where very much ground work in development must be done. The field is full of problems, interesting but ever requiring thought and deliberation for newer and better solutions. In so vast and important a field as this, we must have means of interchange and intercommunication. Such a medium is afforded through THE MODERN HOSPITAL. Here the troubled hospital administrator and worker may find enlightenment and assistance in the solution of problems through experience and knowledge set forth in well selected and arranged data. We cannot all participate in a Milwaukee or Atlantic City meeting each year, where there is such a wonderful opportunity provided for the interchange of ideas, but we can have this same opportunity through the columns of such a publication as THE MODERN HOSPITAL.

The reader is impressed further by the universal application of the information contained, fitting as it does all types of institutions, large or small, with their varied problems and conditions. To the hospital administrator or worker who refers to one or other of the one hundred and twenty issues, this publication proves to be an invaluable friend and helper.

The future holds much for THE MODERN HOSPITAL in a rapidly growing and developing field. THE MODERN HOSPITAL can help solve some of these and assist the administrator if it follows the well proven, sound, practical lines of the past, and is at the same time progressive, in order that the present day may develop the initiative and leadership required for the future.

M. T. MACEachern,

President-elect, American Hospital Association.

MEETS NEED IN CONSTRUCTIVE WAYS

To the Editor:—

It is a pleasure to offer congratulations to THE MODERN HOSPITAL upon the completion of ten years of service. The need for regular exchange of information and experience in a field so extensive is obvious. THE MODERN HOSPITAL magazine has contributed to meeting this need in definite, constructive ways. Please accept my good wishes for a continuation of this contribution.

GEORGE E. VINCENT

President, The Rockefeller Foundation.

PROMOTES HIGHER HOSPITAL STANDARDS

To the Editor:—

The need of adequate journalistic expression had been felt by hospital workers for a long time before THE MODERN HOSPITAL was launched in 1913, and the magazine was warmly welcomed, but with some mental reservation on the part of those who were cognizant of the fact that objects which create a certain impression when viewed from a distance have a disconcerting way of changing their appearance and character on closer acquaintance. "I thought it was her, and she thought it was me, but when we come nearer, it weren't either of us." But THE MODERN HOSPITAL has steadily improved on closer acquaintance and today seems almost indispensable as a continuous record of fact and opinion in the hospital field. The current record of notable achievement which THE MODERN HOSPITAL periodically presents, stimulates efforts toward like achievement elsewhere. Through the magazine higher standards of work have received expression and have obtained wider recognition. The whole hospital movement, national, state, and local, has been reflected in the pages of the magazine. Perhaps the most important single service which has been rendered has been the awakening of the stay-at-home hospital superintendent and trustee.

My only criticism of THE MODERN HOSPITAL is that it has the defects of its combined quality of newspaper and critical journal. There is a conflict between these two functions which the magazine will hardly be able to escape unless it should some day be split into two separate publications, one to record the events of the day as a newspaper records them, without bias, purposeful selection, or responsibility for their character; the other to sift happenings and opinions, to make a careful and discriminating selection of material, to enlighten, to educate, to guide, by presenting exclusively the best thought and the most praiseworthy achievement of the hospital world. The adoption of this suggestion may not be at all practical from a business point of view and, if so, I for one will be grateful to THE MODERN HOSPITAL for a continuation of the splendid service which the magazine has rendered in the past.

S. S. GOLDWATER,

Director, Mt. Sinai Hospital, New York.

MEETS DEMAND FOR CURRENT INFORMATION

To the Editor:—

I beg to felicitate *THE MODERN HOSPITAL* upon the successful completion of its first decade. It has attained a high place as an exponent of hospital standards. It adequately meets the demand for current practical information by the professional, scientific, and lay personnel of the hospital.

Wishing you continued prosperity, and an increasing place in the hospital field, I am
H. S. CUMMING,
Surgeon General, U. S. Public Health Service.

PROMOTES BETTER CARE OF PATIENTS

To the Editor:—

I recall my first meeting with Dr. Ball in St. Louis nearly ten years ago. We talked late into the evening on that occasion about the service which *THE MODERN HOSPITAL* could render and about the program for hospital betterment for the American College of Surgeons. The aim of both of these programs was to make for the better care of patients. Both have succeeded; and both have, I am sure, still brighter marks of attainment along the same line for the future. I seldom think backward, but when I do there is nothing I prize more than the little part I had in this work.

I realized at our first meeting how much you could help the program of the College and I realize now how much you did help that program. Your insistent approval of the work both with news and editorials was an important factor in that hospital program. I want to thank you for all that you and your associates on the magazine have done.

Looking to the future, let me express the wish that you and your associates go forward with all the fire that is in you and that you still hold as your central aim the welfare of the patient in the hospital. With such a program the influence of the magazine is bound to increase and its worth in the life of the nation shall be better than fine gold. I am
JOHN G. BOWMAN,
Chancellor, The University of Pittsburgh.

AN ACTIVE FORCE IN MEDICAL PROGRESS

To the Editor:—

It is with real pleasure that I congratulate *THE MODERN HOSPITAL* upon the completion of its first decade of existence and usefulness. This publication has met a distinct need and has done well its role of bringing to the attention of its public the progress in the development of the hospital and its allied services. No less to the medical service of the army than to the profession at large has *THE MODERN HOSPITAL* been a help and a source of guidance.

With expressions of appreciation for the interest your publication has taken in the welfare of the Medical Department of the Army and of its allied service, I am
M. W. IRELAND,
Surgeon General, U. S. Army.

SPONSORS BETTER CONSTRUCTED HOSPITALS

To the Editor:—

Noting that *THE MODERN HOSPITAL* is about to complete the first decade of its existence, I wish to extend my congratulations to you as pioneers and successful moulders of public interest in hospitals.

Prior to the publication of its first number, little interest in hospital matters appears to have been taken by the public. It seems to have been wholly confined to those directly in the work. However, the first number aroused the interest of hospitals in better construction and equipment, better technique, and the magazine has continued to take the initiative in every movement for the improvement of hospital services.

The magazine has also brought about the organization and coordination of effort and developed a consciousness of the importance of the hospital field in human advancement.

The editorials and articles by the leading experts in hospital management, the publication of drawings and equipment have been of the greatest benefit to the hospitals of the country, and have done much to raise the American hospital of today to its preeminent standard.

RICHARD E. SCHMIDT,
of Richard E. Schmidt, Garden & Martin, Hospital Architects, Chicago.

AN EDUCATIONAL FACTOR

To the Editor:—

I wish to assure you that from my own reading of *THE MODERN HOSPITAL* I feel that it is doing a splendid piece of work, and that it has done a great deal to bring the hospitals and the nurses' associations into closer co-operation. It fills the need in every field that has to do with making the hospital what it should be as an educational factor in the community.

ADDA ELDREDGE,
Director, Wisconsin Bureau of Nursing Education, Madison, Wis.

VITAL FACTOR IN HOSPITAL IMPROVEMENT

To the Editor:—

I want to congratulate you upon the completion of ten years of service which *THE MODERN HOSPITAL* has rendered the entire hospital field.

I have been glad to be a "charter" subscriber to this journal and feel that it has been a definite and vital factor in improving hospital conditions and increasing the efficiency with which they are serving the general public.

I have no particular recommendation to make concerning the policy or development of the journal at this time, but I believe that a continuation of the policies that have been followed in the past will make the magazine of ever increasing value to the whole hospital field.

A. C. BACHMEYER,
Superintendent, Cincinnati General Hospital, Cincinnati, Ohio.

A VALUABLE GUIDE TO ARCHITECTS

To the Editor:—

Permit me first of all to congratulate you upon creating a magazine, technical in character, which has made itself a need for all who are interested in hospitals.

I have been much interested in finding *THE MODERN HOSPITAL* on the desk of architects, superintendents, and trustees, from coast to coast, and in noting from their comments and suggestions that it is read and its contents assimilated.

As a medium for posting its readers on what is planned and carried out in plan and construction, it performs a much needed service. We keep it on file in our workroom for frequent reference and find much of interest and profit in it.

HENRY H. KENDALL,
Kendall Taylor & Co., Architects, Boston.

ORGANIZATION OF THE PRIZE SMALL HOSPITAL

THERE have been presented to readers of THE MODERN HOSPITAL several articles outlining charts of organizations and schemes of organization. These presentations, in the main, have been a discussion of the problems of organization and operation of the large hospitals. While it is true that the fundamental principles underlying both the large and the small hospital are identical, the problems of organization and operation of the small hospital, by reason of the restricted field of activity, present in their application several differences, the meeting of which necessitates a somewhat different set-up in detail than is that required by the large hospital.

It is the purpose in this article to formulate a plan of organization of a twenty-five to fifty bed general community hospital, serving a community of from 15,000 to 30,000 people. In working out such a scheme of organization the fundamental principle of centralized control of both policy and operation is accepted in its fullest degree. There is also kept in mind a realization that by reason of the smallness of the community the number of those available who are qualified to render the right type of service to a hospital are restricted both as to trustees and in the professional organization. This presentation is based in a very large measure on the organization of a small community hospital approximately the size mentioned, that has been operated satisfactorily under such a scheme of organization for several years.

Board of Trustees a Necessity

It is the feeling of a great many that there are certain types of hospitals that do not need the services of a board of trustees. It is the belief of the committee, however, that no matter what the type of hospital, what its type of control is, whether it be a general community hospital or a privately owned and privately operated hospital or a hospital owned and operated by a religious community, there should be a board of trustees. The board of trustees in the end analysis has two fundamental functions: 1. that of ownership; and 2, that of policy formation.

Board Should Be Diversified

In certain of these groups of hospitals both functions may be exercised by the board. In others, the second function only can be exercised by reason of the fact that ownership is vested in either an individual or in a religious organization. The reasons for this are manifold, but can be crystallized into two fundamental ideas: 1, it is important that such a body be established in order to form a link between the activities of the hospital and the community; and 2, such a body, even though it may act only in advisory capacity, will give to the operating organization a diversity of opinion on questions of policy, which diversity if properly crystalized will tend to a better administration than if the sole authority is vested in the superintendent or owner.

It is believed that in an institution of the size mentioned, the board of trustees should probably be limited in number to seven. There may be some question as to this small number, but it is believed that in the ordinary small community there are only too few whose services would be of value to such a board of trustees. The membership of the board should

be limited to those who are not actively engaged in the profession of medicine. It should be a representative body comprised of men or women, or men and women from various walks of life. There should be represented a legal point of view, a financial point of view, an educational point of view, a social point of view, a merchandising point of view—in fact, the very function of the board of trustees necessitates the presentation to the operating organization

of as diversified a point of view as it is possible to get.

This board of trustees should be a policy-forming group only, concerning themselves in no sense of the word with administrative detail. They should assume authority for the selection of a proper administrative officer and also the selection of a medical staff. They, in turn, should delegate to their administrative officer the selection and appointment of all of the rest of the operating personnel of the institution.

It is believed that the operating personnel should be divided into not less than three standing committees: a, a medical staff committee; b, training school committee; and c, a finance and building committee, or as some term it, a house committee. There is submitted as a part of this text a chart of organization.

Scheme of Administration

There is no gainsaying the fact that the average small hospital of today presents an administrative problem that is rather difficult of solution. It is also equally true that the average small hospital of today is poorly administered. The personnel of such an institution is not large enough to be divided into the definitely segregated departments that one finds in the larger hospital. Heads of departments must often assume certain duties not properly a part of their work for the reason that the institution is not large enough to provide a department head for each given piece of work.

As a further complication, by reason of the restricted field, individuals best qualified to do a given piece of institutional work are not content with this limited vehicle of expression and prefer to affiliate themselves with institutions where the ability to do a larger piece of work is more in evidence. All of these things being true, there is still, however, the inalterable fact that by far a larger proportion of the sick of the country are taken care of in hospitals of less than fifty beds, and that therefore the largest possible field for the improvement of standards of hospital administration lies in the field of small hospitals. There must be accepted the basic premise that the fundamental principles of organization of the large and of the

THE MODERN HOSPITAL takes pleasure in presenting the report of its special committee on the organization of the small prize hospital, the plans of which won the first prize in THE MODERN HOSPITAL'S architectural contest for a small hospital having a capacity of thirty to forty beds. The committee was composed of Dr. Charles E. Holzer, The Holzer Hospital, Galipolis, Ohio; Miss Mary E. Surbray, Cleveland, Ohio; and the Rev. Maurice C. Griffin, trustee, Youngstown Hospital, Youngstown, Ohio.

small hospitals are identical. It is only the application of detail that is different, and it is the application of this detail that will now be discussed.

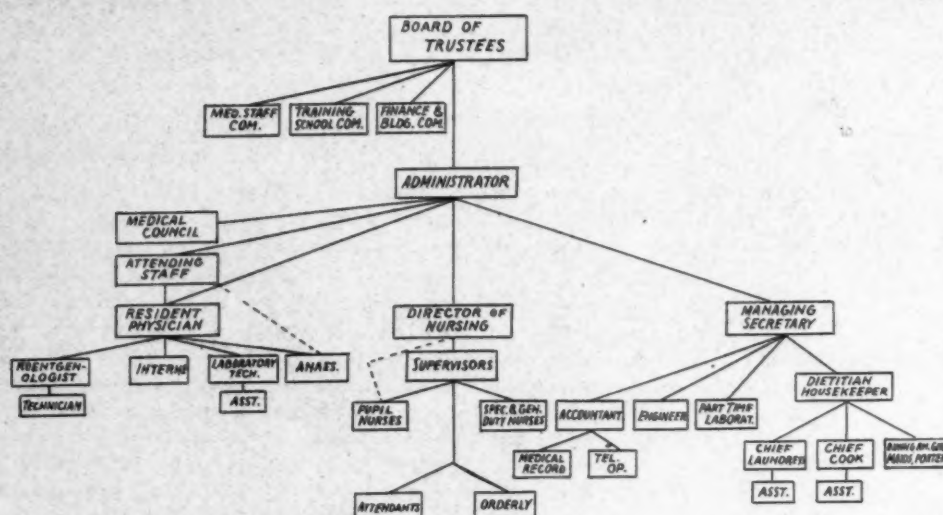
Qualifications of Administrative Head

If the principle of centralizing control of the institution's activities is vested in one individual and that individual is held responsible to the board of trustees for

sulting administrator, but it is intended that he spend five or six days a month in each hospital.

Three Departments in a Hospital

In order that the institution function smoothly during his absence, the authority of his subordinates must be definitely outlined. There are three distinct and separate departments in every hospital—medical, nursing and



Outline of organization of small hospital without resident superintendent.

the entire institution, then it follows that that individual must have a degree of vision and a degree of ability to enable him to accept to the fullest degree the responsibilities that such a delegation of authority entails. An individual with such qualifications very rarely if ever is willing to limit his or her activities to as small a field as the average thirty to forty-bed hospital. Furthermore, the compensation that the services of such an individual commands is beyond the ability of the average hospital of this size to absorb in its cost of operation. It is further true that the superintendent or administrative head of a small hospital of this type, by reason of the lack of personnel, is obliged actually to perform certain tasks of detail, and the administrator, with the qualifications above enumerated, will not be content to do this detail work.

Part-time Administrators

In view of this fact, it would seem that the full-time services of a properly trained, properly qualified hospital administrator for the hospital of the size mentioned would be rather difficult of attainment and there is immediately presented the problem of whether to strive for the part-time services of a well-qualified administrator or be content with the full-time services of one not so well qualified.

It would be presumptuous in an article of this type to propose without any alternative so radical a change as the universal adoption of part-time administrators, but it is believed that such a scheme can be worked out in some groups of hospitals. The advantages of such a scheme are that the administrator would be responsible to the individual boards of trustees of the group of several small hospitals, this group of hospitals to be located in close geographic approximation with each other. He could bring to these small hospitals the ideals of service adopted by the best of the larger hospitals in the country. It is not intended that he should act only as a con-

physical. It would seem proper that the three heads of these departments should be responsible entirely for the performance of their department and accountable only to the administrator. It is suggested that in the absence of the administrator, ranking authority in the institution's operation should be vested in one of the three heads of these departments, either the resident physician, the director of nursing or the managing secretary. It would seem logical that the resident physician, providing, he is properly qualified, should be this ranking authority, but in any event there should be one of these three individuals who would assume priority in the hospital's organization. As an illustration of this type of an organization, there is incorporated in this text a chart of organization with this set-up.

Higher Degree of Competency Assured

The financial saving effected by the employment of such a part-time individual as compared with the amount of money ordinarily paid the superintendent would produce a sum that could be very readily divided and added to the salaries of the heads of the three departments, permitting the institution to obtain a higher degree of competency for the same total overhead as they would under the resident superintendent's scheme.

Such a scheme would permit of the building up of an esprit-de-corps and a spirit of friendly rivalry between the various organizations under the charge of the one individual which would tend to a betterment of each of the constituent hospitals of the group. Friendly competition on the part of department heads in their cost of operation, in the volume of work done and in many other comparisons cannot but have a salutary effect. The hospital in a small community has too little contact with other health centers, and there is a grave tendency to get into a rut that would be in part eliminated by such a scheme.

Such an administrator would be able to standardize the buying of supplies for each hospital in his group and with the buying power created by this saving, hospitals

could unquestionably obtain more attractive prices than under another scheme.

There are of course disadvantages in such a scheme. There is the unquestioned emergency, requiring the immediate presence of the administrator for its solution. It is assumed that the administrator would be resident somewhere in the hospital group that he serves; that each of the constituent hospitals would know definitely his whereabouts, and in the real emergency he or she could be very quickly reached. It would seem to us that this disadvantage would be negligible as compared with the manifold advantages that would obtain from such an administrator's services.

There is submitted also a chart of organization set up for the full-time services of a superintendent. Attention is called to the lines of control that definitely delegate authority for the entire institution's performance to the superintendent, making this individual responsible to the board of trustees.

Professional Organization

No scheme of organization that does not contemplate rather continuous conference as between the directing head and the various working groups of the organization is bound to be unsatisfactory. The ultimate authority on medico-administrative matters of the hospital should be vested in the medical council, consisting probably of three individuals who are in active professional work in the hospital, together with the administrative officer of the institution. It should be the duty of the medical council to work and recommend to the administrator the professional standards of hospitals, and to select and recommend to the board of trustees the professional staff. The active professional work should be cared for by an Attending Staff organized in the usual way. It is not meant by this statement that there is any discussion indicated as to whether the hospital should be an open or a closed staff hospital. In a small community with only one institution serving that community, it is believed that its facilities should be available to all reputable practitioners of medicine in the community, with this very definite proviso, however, that each and every physician practicing

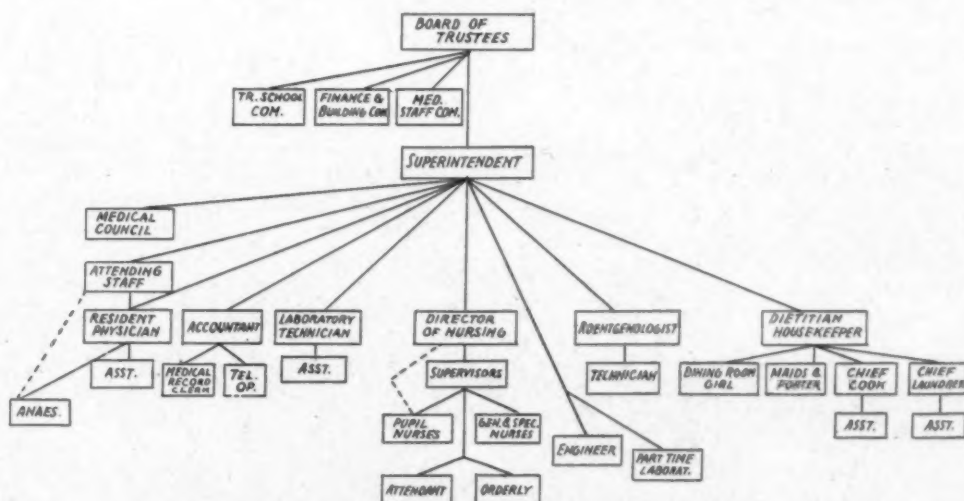
is believed that members of the staff should be elected for a term of not to exceed one year, their re-appointment to be contingent upon proper performance of duty.

In summarizing discussion on professional organization, it is the feeling of a great many of our hospitals that high ideals of medical practice are the thing to be desired that is obtainable by the large institution but is beyond the ability of the small institution to obtain. If the ideals of medicine are sound, and it is believed that they are, and the vision of service of the professional staff is as it should be, then there is no more reason why the high standard of medical practice cannot be obtained in a small institution.

Requisites of Resident Physician

This is indeed an important position and a position that is neglected in a very large number of our hospitals even those higher than the type of institution under discussion. The position should be filled by a man with a good training, probably one who has served as an intern in a large hospital. Through him the professional activities of the institution may be coordinated. The resident, if at all possible, should have with him an intern. These two men would be able to handle very nicely the internal medical work of the institution, complementing the services of the attending staff. If there is an out-patient or emergency service connected with the institution such a group could handle this activity very nicely.

It is felt that no community, no matter how small should be without the services of a well-trained radiologist, competent not only to do bone work, but furnishing diagnostic aid to medical men of the community in chest work, gastro-intestinal work and other types of soft tissue work. The arrangement under which this individual would work would probably vary in each hospital. There is no question that the average forty-bed hospital would not provide a sufficient volume of work to demand a full-time service. Unquestionably, with the proper thought and proper desire to coordinate all of the medical practice of the community, the x-ray department of a hospital can be made the central diagnostic point of the community, to which will be referred all of the community's



Outline of organization of small hospital with resident superintendent.

ing in the hospital is definitely responsible to the board of trustees for the type of work that he does in the community, and shall subscribe without equivocation to the standards, rules, regulations and technique prescribed by the hospital for the care of patients handled therein. It

x-ray work. The arrangement with this individual can provide such time at the hospital as is indicated, the balance of his time to be devoted to his private practice. In this connection, consideration of a combination of duties of resident and radiologist might be considered.

In addition to the services of this radiologist, there should unquestionably be an x-ray technician to take care of the purely technical side of this work, whose duties might also be combined with that of laboratory technician.

Laboratory Under Medical Staff Chief

While it is of course desirable that every hospital have the service of a well-equipped laboratory man, we do not believe that this is possible in most of our small hospitals. In lieu of such an equipment of personnel, it is believed that the chief of the medical staff should be in charge of the laboratory activity. His duties would be purely supervisory. He would visit the laboratory at regular intervals and give advice when called for. Laboratory tests should be done routinely along procedures outlined by the chief of the medical staff. Where any supplemental services are desired, such as the running of pathological specimens, etc., there are in most states facilities set up that can be made available.

The chart of organization is self-explanatory for the department of nursing. The principal of the training school would have no duties other than the management of the training school and responsibility for nursing of patients. Under her there should be an instructor and a sufficient number of head nurses. In most institutions this could be limited to the operating room supervisor and the day and night supervisor. All orderlies and hospital helpers should be under her direction.

Business Management

All business detail of the institution should be handled by the managing secretary. This individual is responsible for the presentation and collection of details. The disbursement of funds is under his or her immediate direction after bills have been approved. The accountant, medical record clerk, telephone operators, etc., are responsible to this individual. Some comment may be made on the question of having a medical clerk responsible to this individual rather than the attending staff. Practice has demonstrated that it is rather difficult to get most of our doctors to take a real continuous interest in their records. With the administration assuming responsibility for the completeness of these records, the possibilities are that a higher type of record will be obtained.

The managing secretary is responsible to the administrator or to the superintendent for the physical condition of the building. The engineer and all personnel of a comparable type should be directed by this person. The superintendent it is believed should closely supervise the buying of supplies. The managing secretary may have charge of the buying of supplies under his direction but under the first scheme of organization, in order to correlate the buying of the different hospitals, the administrator must take active charge of this branch of the work. Responsibility for the disbursement of stores, the keeping of storeroom inventory should be centered in one individual even in the small hospital.

Dietitian-Housekeeper

A small hospital in order to afford the services of a dietitian must combine her duties with those of some other department. Housekeeping may very properly be made a part of her work. The dietary department is really a department in itself, and it would seem that there is very little of comparable nature in the duties of the dietitian and the housekeeper, but compromises must be made for expediency sake and this is one of the com-

promises that is indicated in the small hospital.

It is unfortunate that so few of our hospitals recognize the need for a properly equipped social service department. While it is believed that there is not sufficient activity for in any sense of the word a full-time social worker, it is believed that the social aspect of the care of patients should not be overlooked even in the small institution.

This article in the main is but suggestion. Hard and fast rules cannot be applied in the operation of any hospital, but it is believed that the general acceptance of these fundamental principles will be productive of a higher grade of administration in our smaller hospitals.

REPORTS ON MATERNAL WELFARE REQUESTED

The committee on maternal welfare of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons is anxious to procure accurate information as to the progress which each state is making in the matter of maternal welfare in order to formulate a report for their annual meeting in Philadelphia, in September.

A preliminary program was published in the issue of the American Journal of Obstetrics and Gynecology for June, 1923, which it is hoped may be a suggestion of an outline for national work among all organizations which have a common basic line of endeavor including medical societies, departments of health, and commissions of social workers.

The association requests to have sent a brief synopsis of the results accomplished in each state and most important, if possible, a contrast of the record of the clinics or regions where patients have been privileged to have prenatal care, with the statistics of the community in general where no supervision has been afforded the prospective mothers. It is planned to have these incorporated into the completed survey to be presented to the association and to be published in the annual transactions later on.

AN IDEAL HOSPITAL

I know of a hospital that had for the purpose of its organization the highest and loftiest motives. It has now all that money and means can procure to make it the best and foremost in scientific good. It performs a great amount of charity work year after year. And yet, only those whose social prestige entitles them to an opinion have anything good to say about it. All its honest work, past and present, is refuted in the sense of it being an humanitarian institution because it cannot get in touch or in tune with the common man and woman.

This hospital charges uniformly what other hospitals charge "for being sick." But the men who conduct it, the physicians who dominate it, are deities in the Olympus of the medical profession. It is THEIR temple. "Around you," they say, "I draw the magic circle of science. One step within that circle and we will bring to you all the marvels for which our profession is renowned." And the marvels are usually forthcoming according to the size of the patient's pocketbook.—The Obligation of Doctors, *The Journal of the Michigan State Medical Society*, July, 1923.

My mind to me an empire is,
While grace accordeth health.

—Robert Southwell.

Make the most of small joys of life and they will pave the way to greater. Grasp every opportunity to help another and your helpfulness will increase.

A dollar will go as far as it ever did—if you mail it.

EQUIPMENT OF PRIZE SMALL GENERAL HOSPITAL

THERE are three four-bed wards located on the south end of first floor. These wards each arranged to care for men or women separately, as required, are thirteen feet six inches and fourteen feet wide by twenty-four feet long. Each room is divided by a transom partition into two cubicles which are so narrow that beds are placed against the walls. These cubicles should each be lengthened so as to remove beds at least eighteen inches from walls and allow four-foot corridor between. A wash-basin with typical equipment is found in each room.

Two single bedrooms, thirteen feet six inches by eight feet six inches, adjoining these four bed wards, available for patients who are seriously ill or demand isolation, will require similar equipment.

Wards and ward rooms should have metal beds with two inch posts of steel tubing welded cross-bars and flat upright fillers, head section fifty inches high, foot section forty inches high, mounted on rubber wheels or noiseless metal gliders, Link fabric about twenty-seven inches above floor with Helical springs and adjustable back-rest; hair mattress, as in private rooms; two pillows, twenty inches by twenty-six inches, one-third duck and two thirds hen flake, weight three pounds; full-size rubber sheet, bound and held by straps to prevent wrinkles and quilted mattress pad.

Enamel bedside tables, sixteen inches by twenty inches, with lower compartment enclosed on three sides, open side next to patient's bed. Each is supplied in front with a drawer for small articles and behind with a towel bar.

Provide attractive, comfortable chairs. Rugs are not necessary, but, if used, should be small, about thirty-six inches by seventy-two inches, two-tone and washable. Screens are essential, both single panel and two winged. Also provide adjustable bed table, wheel-chair, tabourette and jardinier for flowers and room thermometer.

This room, fifteen feet six inches by twenty-nine feet, extending across width of building has east, south and west exposure and should be finished in well-chosen colors, lattice work on walls, polychrome design in tile wainscot and floor, and a real sanitary drinking fountain. The pleasure of convalescing ward patients and

their friends may be increased in this room by well-chosen reed furniture including arm chairs, rockers, chaise longue, table or desk for magazine, writing desk with typical outfit, washable two-tone grass or fibre rug,

pictures, colorful window drapes and boxes for ferns or flowers.

The childrens' ward, fifteen feet by eighteen feet, with sunny south windows and adjoining east veranda radiates warmth and cheer. The woodwork is birch, mahogany stain, the walls, cream color decorated with nursery fables. Ivory painted furniture, and where possible, two-tone effects are used. White, on account of its severity, has been eliminated.

There are four cribs, fifty-two inches long, thirty inches wide and thirty inches from floor to mattress, both sides adjustable by means of triplocks,

mounted on rubber wheels, rubber tip or metal gliders, spring link fabric, with adjustable back-rest. Hair mattress with four-inch box and weighing seventeen pounds each, mattress pads, rubber sheets, pillows (large and small), two kindergarten arm chairs, two straight chairs, bedside table, two single panel screens, marquisette curtains with bright colored over drapes, washable two-tone rugs, name card-holders on beds, blankets, sheets, draw-sheets, spreads, pillow cases, towels, wash-cloths and tabourette with jardinier for plants. There are two closets, one for toys and one for clothing, equipped with shelves and hooks.

The bath-room lavatory and toilet contain the same equipment as that for adults, except fixtures are of juvenile type.

The excellent veranda, partly covered, open portion being enclosed on three sides with glass, is used as a play room. Walls are adorned with fairy stories to entertain children unable to play. Small tables with kindergarten chairs in color, book-case, writing-desk, green-board on easel provided with colored crayons, phonograph with juvenile records, cuckoo-clock and radio set, all tend to occupy the children and to hasten convalescence.

Maternity patients are cared for in two semi-private rooms, eleven feet six inches by fifteen feet, with communicating bath, lavatory and toilet. Walls of soft tone gray with mahogany stained wood-work and furniture,

This is the second installment of the report of a special committee appointed by THE MODERN HOSPITAL on the equipment of the small prize hospital, the plans of which recently won first prize in THE MODERN HOSPITAL'S architectural contest for the plans of a small hospital from thirty to forty beds.

The committee consisted of Dr. R. G. Brod-rick, director of hospitals, Alameda County, San Leandro, Cal., Mrs. William B. Tavelle, Oakland, Cal., and Mrs. K. M. Prindivile, superintendent, Laurence and Memorial Associated Hospital, New London, Conn. The first installment of the report appeared in the August issue, page 161. For the convenience of our readers in studying this report, the first prize plans as they appeared in the May issue are reprinted on page 283.

EDITOR.



Patients' ward, Lower compartment of bedside table is open on side adjoining bed.

ecru marquissette curtains with over drapes of French blue sunfast silk, and appropriate pictures give no suggestion of "hospital atmosphere." Metal beds, French gray, square posts and fillers, springs, mattresses, mattress pads, pillows, rubber sheets, bedding, etc., as described elsewhere; in each room are provided a dresser and one three panel screen, wooden frame and fillers to match window drapes, two bedside tables, arm chair, rocking chair, rugs thirty-six by seventy-two inches, bedside lamps, and tabourettes or fern boxes.

The nursery, eleven feet six inches by fourteen feet six inches, has two built-in cabinets for linen and supplies, one with infants porcelain bath with anti-scalding mixing valve and folding ash drain-board. Provide a baby's steel dressing table with porcelain enameled top, size twenty-four inches wide and twenty-six inches long; at back and sides frame for white muslin curtain underneath compartment, open in front, closed across back and sides, beneath which are two drawers fourteen inches by twenty inches by four inches. Five bassinets, two double and one single; frame of tubular steel, mounted on large easy rolling casters, with removable basket. Hair mattress pads, quilted protectors, rubber sheets, one rubber covered pad for drain board, single panel white enamel screen, low white enamel chair, set of scales graduated to one-fourth ounce, electric room heater and name card holder, baby's white enamel bath tub, basins, dressing trays and containers for supplies.

The incubator room adjoining is equipped with an electrically heated incubator, dressing cabinet and table. This room should be adequately heated and ventilated.

Service rooms for ward and private patients include nurses' station, utility room, serving pantry, linen and supply closets, toilets, baths and janitors room. These will now be considered.

Nurses' Station

This room, eleven feet by fourteen feet is the headquarters of the ward. A built-in medicine cabinet with slate sink for dispensing medicines is provided. In its base are drawers and lockers for supplies while, above, are compartments for medicines, hypodermic and temperature trays. One section provided for narcotics and poisons should be equipped with cylinder lock and electric switch, which operates a red light when door is opened. Supply liquid soap dispenser, paper towel container above, and covered waste receptacle below sink.

A hot-plate, electrically heated, placed adjacent to counter is used for sterilizing hypodermic needles, and instruments. The nurses desk, twenty inches by forty-eight inches, has base of steel finished in French gray metal top, two pedestals with built-in racks for aluminum chart files, nine and one-half inches by twelve and three-fourths inches hinged on long end. The desk equipment includes blotter-pad with plate glass top, stand for red and black ink, small blotters, desk calendar, ruler, pens, pencils, scratch pads, erasers, gum labels, rubber bands, telephone and telephone directory.

A desk lamp with green glass shade on wall above desk with pull chain patients visible card index register, annunciator for nurses call, bulletin board, chemical fire extinguisher, framed ward regulations and nursing procedure, revolving chair and waste basket complete the equipment. An additional desk and chair have to be provided for physicians' use in writing histories and orders.

This room, thirteen feet six inches by ten feet six inches, has tile floor, tile wainscot and floor drain near sterilizer. Much of the arduous duty of the nurse is

performed in this room, therefore every effort should be made to conserve her energy by providing adequate equipment as follows:

Clinic sink, wall utensil rack for urinals, bed and douche-pans, irrigator stand, utensil sterilizer, pack sink, also for rinsing soiled linen, provided with wringer and ash drain-board, dryer for wet linen and soiled clothes hamper.

A work table, adequate in size, with marble or monel metal top, is provided with electric hot-plate for preparation of enemata, irrigations, compresses, douches, etc.; above are shelves equipped with white enamel containers for flaxseed, mustard, magnesium sulphate, connecting tubes, irrigator tips, or nozzles, catheters, assorted connecting tubing, graduates and funnels. Below is a broad marble shelf for white enamel trays, wash and emesis basins, assorted solution bowls, irrigator cans and pitchers. On floor is covered waste receptacle, a ventilated specimen cabinet for twenty-four hour urine specimens and also excreta for physicians' inspection. Adjoining work table beneath which is locker for storing specimen bottles. Here is also provided insulated drawer to hold cracked ice for cold packs, ice collars, etc.

Serving Pantry

This room measures fourteen feet by seventeen feet, has quarry tile floor and base, tile wainscot and double acting door. Food from main kitchen is readily transported in steam table aluminum inserts, pans, etc., in electric dumb waiter, provided with automatic device, which lights a lamp, within, as dumb waiter reaches floor. An inter-communicating telephone system connects serving pantries with main and special diet kitchens.

Fixtures, for cooking and serving hot food, consisting of gas stove and steam table, are placed under vented hood. Steam table is specified with openings for aluminum inserts and pans, front serving board, splash back, steam valves and coils for separate heating bain marie and dish warmer.

Gas stove provided with four burners and upper oven is essential for cooking specials and for night use. A framed blackboard is so ruled that type of diet ordered may be noted opposite room or bed number.

Trays set-up on shelves are transferred to tray carriage, twenty-four inches by forty-two inches, stationed beneath, and, after being supplied with food, are conveyed to patients.

Electrically controlled clock stimulates prompt service.

Refrigerator and cupboard used in common are placed adjacent. Counter is used for making salads, preparing cold food, butter slicing and cutting of bread kept in ventilated metal locker. Case below contains drawers for flatware and lockers for linen; above, cupboard provides storage for foods such as oranges, sugar, cereals, cocoa, salt, etc., which are kept in white enameled covered containers.

The patient's trays can often be set up in the main kitchen instead of in the serving pantries. This is done in many hospitals especially those serving private patients where the dietitian desires to supervise personally each tray. Here, however, the trays are set up in the serving pantries as the main kitchen and the diet kitchen of the ground floor are congested while the serving pantries are large. Were the ground floor less congested the tray service could be handled in the main kitchen or better still the main diet kitchen.

Refrigerator is provided with pop-valve leading to trapped floor-drain. A galvanized iron sink with double drain boards is provided, beneath which is covered receptacle for garbage.

Soiled dishes are sent to scullery for cleaning in mechanical dish-washer. A dryer is provided for wet dish towels, brushes and mops. Broom and brushes are kept in vented closet above which is shelf for soap, soda and cleaning powder, which should be kept away from food.

The linen closet located in dark corner is provided with adequate cross ventilation through adjustable door transom and ceiling vent. Counter and shelves supported on standards furnish space for storing linen, blankets, robes, pillows, air cushions, etc.

Supply Closets

Supply closets are located in dark corner opposite linen rooms. These closets are similarly provided with work-counter and shelves for set-up trays, such as examination, preparation, surgical dressing, hypodermoclysis, gastric lavage, lumbar puncture, treatment of ear, nose and throat, catheterization and hemorrhage.

As no treatment room is provided, the dressing carriage will be stationed in this room. On it are found dressing instruments in covered trays, assorted sterile dressings and towels in covered jars, solution flasks, dressing syringes, ointments, powders and medicines used in dressings, solution bowls, basins and waste bucket.

An oxygen cylinder is kept here for emergency use.

Store Rooms

Two store rooms, ten by thirteen feet six inches, on second floor at north end of corridor will be designated No. 1 and 2.

No. 1, without window, used as apparatus room will contain: Balkan and Gatch frames, bed cradles, bed elevators, bed truck, extension apparatus, commode chairs, wheel chairs, restraining apparatus "Humane type," step-ladders, electric floor machine equipped with brushes for scrubbing and polishing, vacuum cleaner, wheel stretchers with leather pad covers. Shelves are provided for smaller apparatus as electric heater, bed props, bed cradles, extension apparatus, etc.

Store room No. 2, with window, is provided with steel lockers, twenty-four inches by twenty-four inches by eighteen inches for patients clothing from three four-bed wards and two segregation rooms on first floor, three semi-private and three private rooms on second floor, all of which are not provided with closets.

Janitors' Closets

One janitors' closet on each floor is not enough. Floor is of small hexagonal tile preferably mottled design, base and wainscot tile.

Slop-sink must be of size (twenty-four inches by twenty inches by twelve inches) adequate to hold large bucket and of such material as will stand hard usage. Above, are two shelves, twenty-four inches long, eleven inches wide, one inch from rear wall for "janitorial" supplies as cleaning powders, soaps, toilet-paper, etc.

On side wall, hooks are installed for brooms, brushes, and other cleaning equipment.

The Operating Department

The operating department occupies north wing on first floor and includes major and minor operating, anaesthesia, sterilizing, surgeons' dressing, nurses' dressing, scrub, work room and storage closet. The major operating room is fifteen feet six inches by eighteen feet six inches. Floor base and wainscot is tile of dull gray color, above walls and ceiling are treated with washable flat tone paint. On north wall is large double opaque glass, be-

tween which is radiator to provide heat of at least seventy-five degrees Fahrenheit. Ventilation is furnished by means of exhaust through vents.

Artificial lighting should be of sufficient power to illuminate, free of shadows, the operative field including cavities. Door to sterilizer room is two feet, six inches wide, double acting with upper clear glass sash and noiseless kick-plates. Sink has double knee acting valve. The major operating room, fifteen feet six inches by eighteen feet six inches, contains no built-in equipment except clinic sink; hence, instrument cabinet may be placed here, or in nurses' work room, as desired. An operating table provided with rubber pads and necessary attachments and adjustable to different positions (under control of anaesthetist, where possible), shelf stand, instrument table, twenty inches by thirty inches, with monel metal top, adjustable instrument stand, dressing table, two double basin stands, irrigator stand (percolator type), adjustable electric light, revolving stools (high and low), mechanical clock, Kelly pad, foot stools, white enamel buckets with rubber on bottom, solution basins, solution bowls assorted, emesis basins, glass dressing jars with covers, enamel dressing jars with covers, glass flasks, trays and pitchers.

No attempt will be made to list instruments except for simple operative and diagnostic procedure, such as stethoscope, sphygmomanometer, percussion hammer, head mirror, ophthalmoscope, nasal and aural specula, tongue depressors, metal tape measure, cystoscope, aspirating and transfusion set, tracheotomy and intubation set, tourniquets, mouth gags, laryngeal mirror, needles, sutures and ligatures, syringes (Luer assorted), thermo-cautery, straight and curved scissors, towel clips, knives, sponge holders, eight inch straight and curved clamps, straight and curved hemostats, tissue forceps plain and tooth, appendix crusher, probe, groove director, assorted needle holders, abdominal retractors, vaginal and rectal specula, single and double tenaculum, dressing forceps (assorted), uterine sounds and dilators (assorted), uterine blunt and sharp curettes, placenta forceps, circumcision clamp, mosquito forceps and dissectors.

The minor operating room, fifteen feet six inches, by eighteen feet six inches, is used for emergency, eye, ear, nose and throat, dental and cystoscopic work. Light-proof roller shades or wooden blinds are provided for windows, that artificial light may be used when required. A combined examining chair and operating table and a special eye, ear, nose and throat cabinet have been provided; otherwise equipment is the same as in the major room.

The anaesthesia room, ten feet by eleven feet six inches, has one built-in cabinet for supplies. In many instances the operating table will be used that patients may be saved unnecessary handling, but there will also be a wheel stretcher with rubber covered pad, anaesthetists table with shelf and drawer, nitrous oxide, oxygen and ether gas apparatus, chloroform and ether inhalers, bottles, mouth gags, tongue forceps, stethoscope, emesis basins, tray with stimulants as ordered, ready to administer, supply of towels, sheets, blankets, etc.

The sterilizing room, thirteen feet by fourteen feet six inches, conveniently located between the operating rooms, contains dressing, hot and cold water, instrument and utensil sterilizers; also, instrument sink with ash drain-board. There will be added a blanket warmer, saline solution cabinet, gas plate, shelf and waste receptacle.

Surgeons' dressing room, seven feet six inches by fourteen feet, contains five built-in steel lockers, small table, two wooden stools, soiled linen container, five name card-

holders, whisk broom, waste basket. The adjoining lavatory and toilet contain regular equipment.

Scrub room, nine feet six inches by twelve feet, used by both surgeons and nurses. There are two sinks with double knee action control. Shelves are provided with jars for brushes and soap containers. White enamel table sixteen inches by twenty inches, for files, orangewood sticks and towels.

Nurses' dressing room, seven feet six inches by thirteen feet six inches, is same as surgeons except it contains six lockers.

Nurses' work room, seventeen feet six inches by thirteen feet six inches, provides ample shelf drawer and cabinet space for linen, sterile and non-sterile supplies. There is also work table thirty inches by seventy-two inches, stools, waste basket, linen hamper, bandage cutter, large shears and an abundance of such linen as surgeons' operating suits, gowns (long and short sleeved), caps, masks, nurses' operating gowns, sheets, pillow cases, blankets, surgical stockings, gowns and binders for patients.

The storage closet will be supplied with shelves for storing surgical supplies, such as splint material, extension apparatus, etc. The obstetrical suite is convenient too, but entirely separate from the surgery.

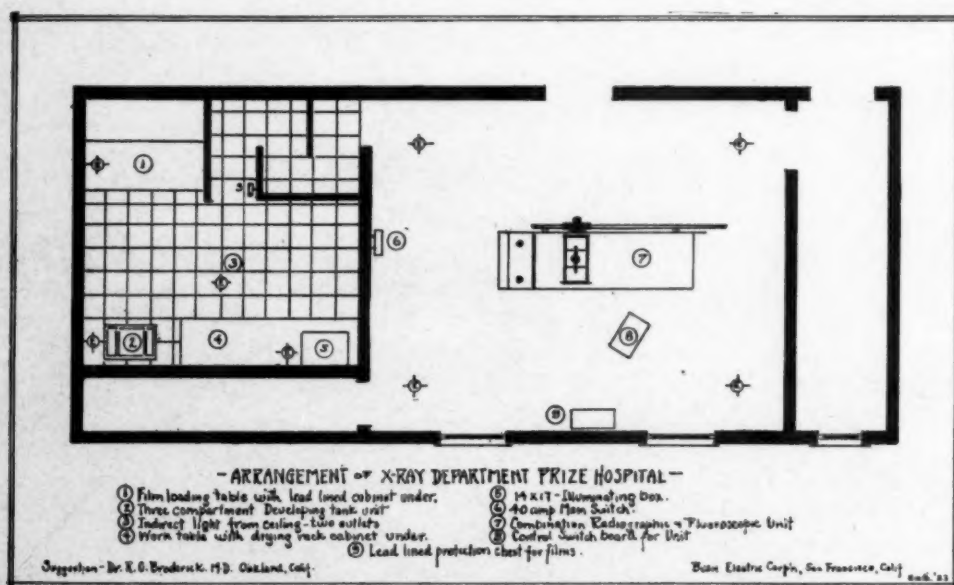
The delivery room, fourteen feet six inches by fifteen feet six inches, contains sink and one built-in instrument cabinet with cupboard beneath for sterile supplies. The obstetrical bed should have rubber covered hair mattress, bedside cabinet, basin, bed pan, toilet paper, etc., beneath dressing table, twenty inches by thirty-six inches, adjustable instrument stand, adjustable electric light, basin stand, gas apparatus, bassinette, wall shelf stand, infant bath tub, enamel bucket with rubber on bottom, preparation tray, hypodermoclysis tray, enamel covered tray for boiling gloves; clock, Kelly pad, solution basins, pitchers, bowls, flasks, jars, Luer syringes, assorted ampoules of pituitrin, ergot, camphorated oil, stethoscope, sphygmomanometer, chloroform and ether inhalers, obstetrical forceps (long and short), Colpeurynters bags assorted, uterine dilators, packing and dressing forceps,

scrub sink and lockers, same as surgeons dressing room. The sterilizing room contains sink, instrument and utensil sterilizers, blanket warmer, shelf gas plate and waste receptacle will be added.

The ambulance entrance is at the north east angle of first floor wings. Patients are admitted directly into the accident receiving and surgical dressing room where minor dressings are done and examinations made. There is one built-in supply cabinet and one sink. The following are provided: wheel chair, wheeled stretcher with pads, examining table chair type with rubber covered pads, revolving stool, basin stand, one panel screen, dressing table, foot stool, waste receptacle covered, liquid soap dispenser, paper towel container, waste basket, dressing tray complete, preparation tray complete, gastric lavage tray, pitchers, trays, basins, bowls, flasks and bottles. Linen supplies are procured from nurses work room.

Laboratory

The importance of adequate laboratory facilities has been particularly emphasized by the American College of Surgeons in its campaign for minimum hospital standards. Routine analyses, which represents the major portion, can be satisfactorily carried on by a properly trained technician, but more advance work, as serological tests or examination of tissues should be made by an expert in a reliable laboratory. The laboratory consists of but one room, size fourteen feet six inches by sixteen feet, and contains built-in cabinets, shelves and yellow earthenware sink. Essential are autoclave, small automatic electrically heated incubator, centrifuge on concrete base, electrically operated, two burner gas plate, still (gas heated), unless placed in drug-store, refrigerator, stools, chemical fire extinguisher, soap dispenser, paper towel container and waste receptacle. Following articles will serve as a nucleus: Microscope with substage condenser and oil immersion lens, Ainsworth balance, one set of weights, pyrex beakers in different sizes, bottles four and eight ounces, re-agent dropping weighing and wash bottles, assorted specimen bottles and containers, brushes for



pelvimeter, vaginal specula and retractors, tissue forceps assorted, scissors curved, straight and umbilical needles and sutures and placenta forceps. Obstetrical linen supply will be kept in work room and brought in as needed.

The scrub-up room joins the birth room and contains

beakers, burettes and test-tubes, alcohol lamp and Bunsen burner, porcelain casserole, clamps for burette and test tubes, cover glasses, crucible with covers and holders, assorted cylinders, evaporating dishes, petri dishes,

(Continued on page 286)



First prize went to Butler & Rodman of New York whose design, the perspective of which is shown above, is simple and economical of construction.

A SIMPLE SOLUTION OF THE SMALL GENERAL HOSPITAL PROBLEM

AS IN any architectural design, so even more in the case of a hospital is it essential, first of all, to work out a plan which shall satisfy the needs set forth in the program. I have never forgotten the remark made to me by a great French architect: "On a good plan you can make forty good elevations, but first you must have the good plan, and on a bad plan no good elevation is possible." This is a precept too often neglected by architects who start out with the idea of a beautiful exterior and forget that it can only proceed from a good plan.

In studying the plan we were at first tempted by a solution along the lines of tuberculosis sanatoriums in which every room would face the south. The large number of single rooms and the small size of the wards seemed to point to this arrangement which would be most attractive from the point of view of the patients, but it soon became apparent that the great length of the building from east to west would increase the labor of the nurses beyond all reason, while minor objections were the excessive length of heating and plumbing lines; so we abandoned the idea in favor of the plan adopted, in which every patient's room has east, west or south exposure.

This plan appeared to us especially economical in that it permitted the central location of stairs, elevators and service rooms, and still provided for the segregation of the

different departments, and allowed for future expansion in three directions.

We assumed that the hospital was to be built in a climate where protection from cold winds should be considered, and therefore selected a site on ground rising gradually toward the northwest. This permitted us to place the business, admitting and out-patient sections of the hospital in the basement on the east, while the slope permits of access to the ambulance entrance on the main floor level. We felt also that it was desirable to place the entrance away from the operating rooms, so that the incoming patient need not be greeted by the blank stare of operating room windows.

The placing of kitchen and laundry was also a difficult problem. In a larger hospital these services may easily be removed from the hospital proper, but when that is impossible for reasons of economy, as in this case, it reduces itself to the question of what are the least objectionable locations.

Of all the patients, the children would be least annoyed by the noise of the kitchen, so it has been placed under the children's ward, and for a similar reason we placed the laundry under the main airing balcony, where its presence would be least noted. Other points in plan arrangement which appeared to us worth while are the



EQUIPMENT OF SMALL GENERAL HOSPITAL

(Continued from Page 282)

flasks and funnels, haema cytometer, haemaglobinometer, pipettes, slides, spatulas, rubber stoppers, test tube and burette supports, thermometers, triangles assorted, saccharometer, test-tubes assorted, tubing pure gum, watch glasses, wire baskets, wire gauze and asbestos center.

X-ray Department

The x-ray department consists of x-ray, dressing, dark and store rooms. A plan of arrangement of this department is shown on page 282. The x-ray room, fourteen feet six inches by eighteen feet, is provided with roller, or winged shutters on windows and light-proof doors. A combination radiographic and fluoroscopic unit (7) is advisable, consisting of table with built-in transformer, high tension masts, tube stand and high tension switch. The table can be tilted in all directions from vertical to Trendelenberg. Tube stand is of stereoscopic type, movable control table (8) is necessary as is enclosed safety main switch (6), wire of sufficient weight to drawer forty amperes with not less than five per cent drop in voltage on immediate closing of switch. Such a unit will attend to routine radiographic and fluoroscopic work. It is not advised to do any therapy. The table is so placed that tube stand is near door permitting badly injured patients to be rolled in on bed and not be removed as tube stand may be turned over it. Figure nine is lead-lined chest to protect films from exposure during radiographic work.

The dark room, entered through maze, is two feet wide, and provided with detachable panel to permit equipment to be moved in and out. It is five feet six inches by nine feet, floor cement provided with drain; walls painted dull buff or orange color. A duct leads to vent flue for necessary ventilation. Upon entering, press switch to ignite red and green lamps which produce non-actinic light in indirect ceiling receptacle (3). At (2) is tank, sixteen inches by twenty inches by twenty-one and one-half inches with compartments for developing and hypo solutions. Hot and cold water through mixing faucet is provided. Place tank nine inches from wall and install above, fifty-four inches from floor, dark room safe light with green safety filter.

Adjoining, is work table, (4) under which are racks for drying wet films which may be helped by electric fan. At (5) is fourteen inch by seventeen inch shadow box with electric outlet for viewing wet films in dark room.

On opposite side, so placed to eliminate chemical or water affecting films or intensifying screens, is the loading table (1) with lead lined cabinet beneath to store active films and cassettes. Above, is socket for safe light.

Accessory dark room apparatus include: 1—fourteen inch by seventeen inch cassette with combination intensifying screen for large work as chest, pelvis and gastro-intestinal; 1—eight inch by ten inch cassette with combination intensifying screen for smaller work as head, spine, etc. The small hospital need use only three sizes of x-ray films, which are: fourteen inches by seventeen inches, eight inches by ten inches, and five inches by seven inches; 12—film developing hangers, four each for three different sizes of films, and four for dental work are necessary.

A plate marker with name of hospital and town; the celluloid type with small lead figures is commonly used with three sets of figures from 1 to 0, and one "R" and

one "L." (Right and Left.) Assortment of Manila envelopes to preserve negatives.

If stereoscopic work is desired, a stereoscope must be added together with another set of intensifying screens. Most combination tables are equipped for stereoscopic work. Present day x-ray equipment is simple in operation and the average graduate nurse can soon be taught to operate it and obtain perfect results. A technic is usually given for variable weights of patients and different regions of body. The dark room procedure is exact but if the operator is careful in methods there is no reason why good results cannot be obtained.

PROGRESS IN THE CURING OF LEPROSY

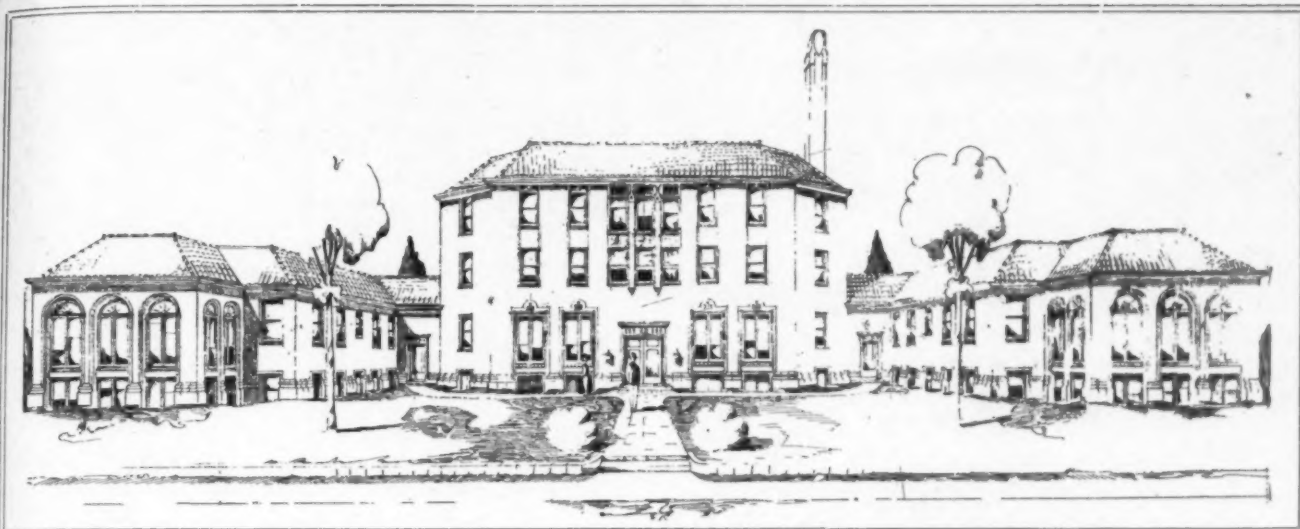
During the last ten years (1912-21) a considerable percentage of the lepers segregated at the Kalihi Hospital near Honolulu and on Molokai Island have been paroled; that is, they have been released as being "not a menace to the public health," but have been required to report for examination at certain intervals which vary with the individual case. Of those paroled, according to the report of the U. S. Health Service, about thirteen per cent have relapsed and have returned to segregation; but about one-fourth of these were later paroled for the second time. In all, 242 lepers were paroled; thirty-one relapsed and seven of these were later paroled. Ten were completely released from parole.

The chance of arresting the disease decreased with the length of time that it had been allowed to go without treatment unless this period was seven years or more. Apparently patients who survive without treatment for seven years possess powers of resistance that slightly increase their chances for marked improvement under treatment. Those who desire it are treated with chaulmoogra oil and its derivatives.

The parole system was begun in 1922 and has worked admirably. Those paroled appear to have told their friends that the conditions existing at the hospital were good; and the mere fact that they had been released has shown that segregation might lead to cure and not to life-long confinement, as it almost invariably did previous to 1912. As a consequence many lepers, instead of concealing the disease up to the last possible moment, (and thereby spreading it through the community), are now surrendering of their own accord and taking treatment. This earlier surrender and earlier treatment hasten the degree of improvement that will secure parole and will later, perhaps, complete release. About seventy per cent of these who have been paroled were in segregation for less than two years.

SOCIAL WORKER—THE HOSPITAL'S HOSTESS

"The ideal method of hospital management today, I say again, is the hospital that takes full cognizance of the value of social service work. Every patient should be admitted socially and discharged socially. The social service office should be in the main hall and a worker should be in the admission office at all times. She is the hospital's hostess and no one knows the potential importance, from an advertising view point or otherwise, inculcating from a kind word upon the arrival of some unfortunate patient or visitor. At this time, more than any other, the worker should be "on the job" and carry her job towards a social endeavor."—Edgar Charles Hayhow, Hospital Social Service, May, 1923.



This design by Leonard C. Neilson, Salt Lake City, Utah, shows unusual arrangement of ground floor, and lends itself well to expansion.

SETTING FEATURES UNUSUAL ARRANGEMENT OF GROUND FLOOR

THE plans for which prizes and honorable mentions were awarded in THE MODERN HOSPITAL'S architectural contest for the plans of a small thirty to forty bed hospital were published in the May issue. Fourteen other plans submitted in the contest were selected for publication in the June, July, August, and September issues. It is felt that the educational value of a study of these plans is greatly enhanced when accompanied by comments both critical and commendatory, and various experts in hospital planning have therefore been invited to criticize the plans anonymously. In preparing the comments subjoined, we are indebted to Messrs. Ludlow and Peabody, architects, New York, Harold Field Kellogg, architect, Boston, Mass., Henry C. Wright, director, Institutional Bureau of Consultation, New York, Drs. Joseph B. Howland, superintendent, Peter Bent Brigham Hospital, Boston, Mass., L. A. Sexton, superintendent, Hartford Hospital, Hartford, Conn., and W. G. Neally, director, Brooklyn Hospital, Brooklyn, N. Y.

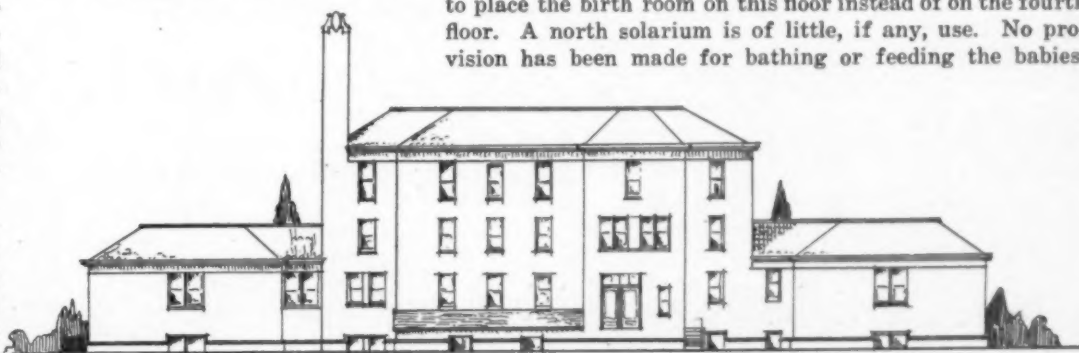
THIS set of plans shows an ingenious arrangement whereby the first floor is placed out of the ground with the main entrance, office, and so forth, on the second floor. The design lends itself well to future expansion.

It is unfortunate that the kitchen has no exterior ventilation. The laundry is inadequate in size and there is an insufficient amount of storage space. The food for the nurses' wing must be carried from the kitchen along the corridor to a dumb waiter. The plan requires two utility rooms and two diet kitchens on each floor. This arrangement is unnecessarily expensive for a hospital of this size. A private bath for each of the female help is unnecessarily expensive.

The officers' dining room should be on the first floor near the kitchen and the superintendent's accommodation should not be sur-

rounded by accommodation for patients. The rooms with private bath would better be corner rooms. Placing the out-patient rooms adjacent to the front entrance is not a happy arrangement. There is no indication of an ambulance entrance. If the ambulance is called the "receiving room," it is reached only by a flight of stairs and there is no emergency operating room adjacent. Interior linen rooms are not advisable unless no exterior wall space is available. An interior toilet opposite the main entrance would not pass many building laws.

The third floor is well arranged although it might be well to place the birth room on this floor instead of on the fourth floor. A north solarium is of little, if any, use. No provision has been made for bathing or feeding the babies.

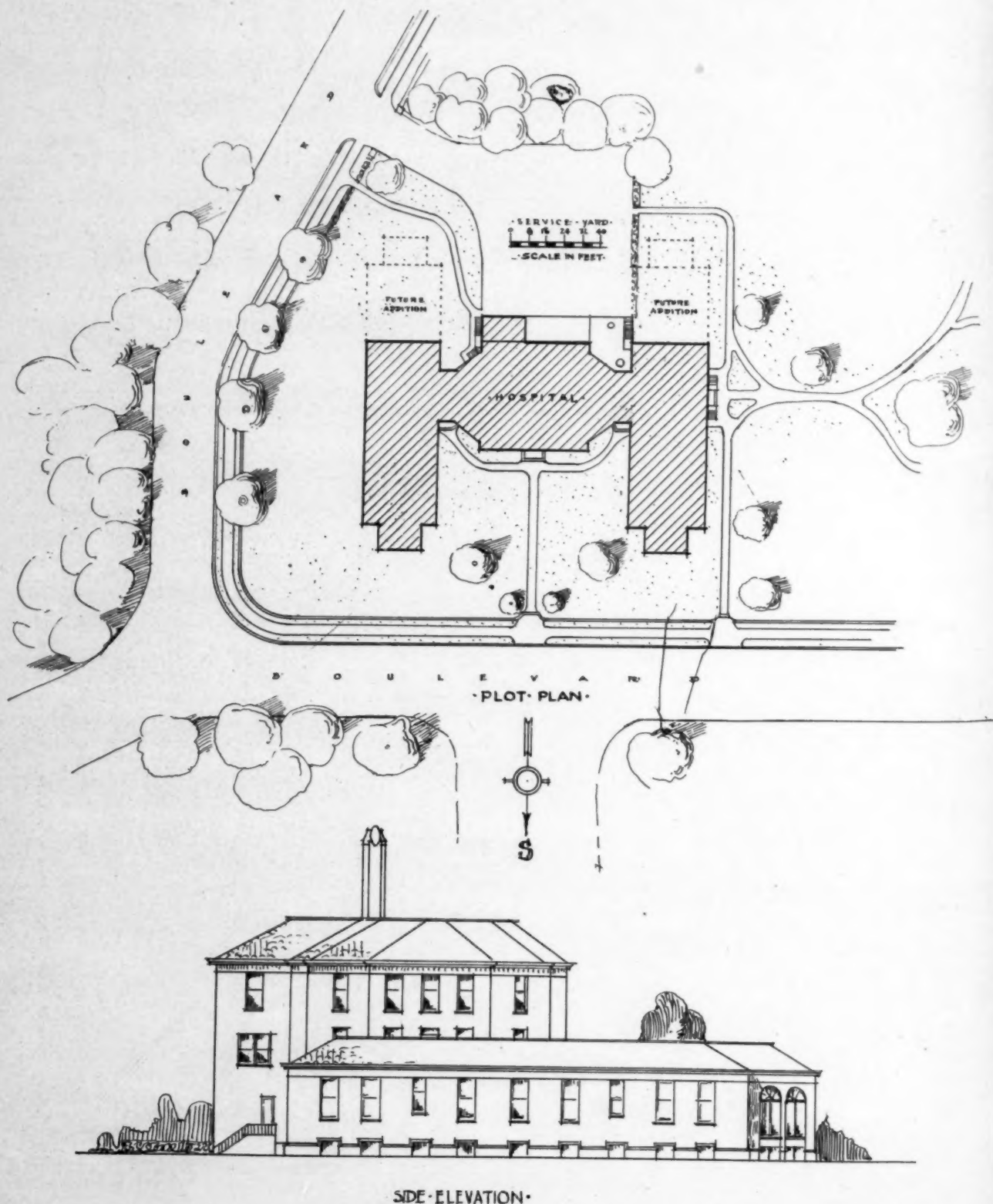


REAR ELEVATION

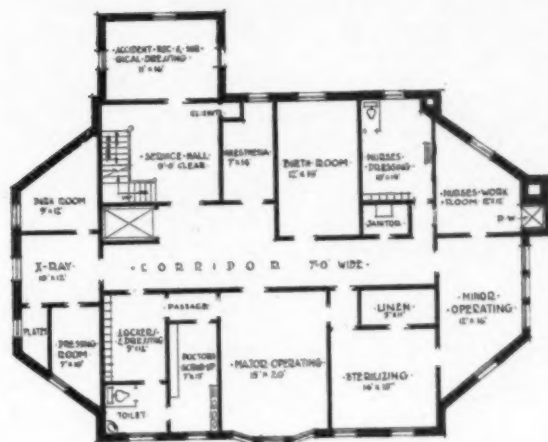
It is most extraordinary to find the major operating room on the south side, and the minor operating room with an east window is not well placed. West light is better than east for operating rooms, if a north light cannot be had, as most operations, except in case of accident, are performed in the morning. The accident and surgical dressing room should be near the receiving room on the second floor. The main x-ray room is inadequate in size. The linen room should not be an inside room and, moreover, should not open into the sterilizing room.

The nurses' work room is inadequate.

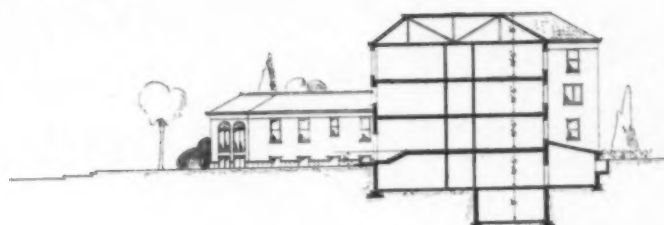
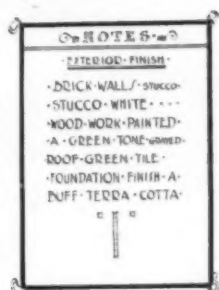
This open plan, while more expensive to build, gives a picturesque appearance. There are more stairs than some of the other plans show although there is but one staircase to the third and fourth floors, this arrangement would not pass many building departments. The exterior is well proportioned and a good effect can be obtained with low cost materials such as stucco walls with tile roof. The possibilities of future extension have been well planned.



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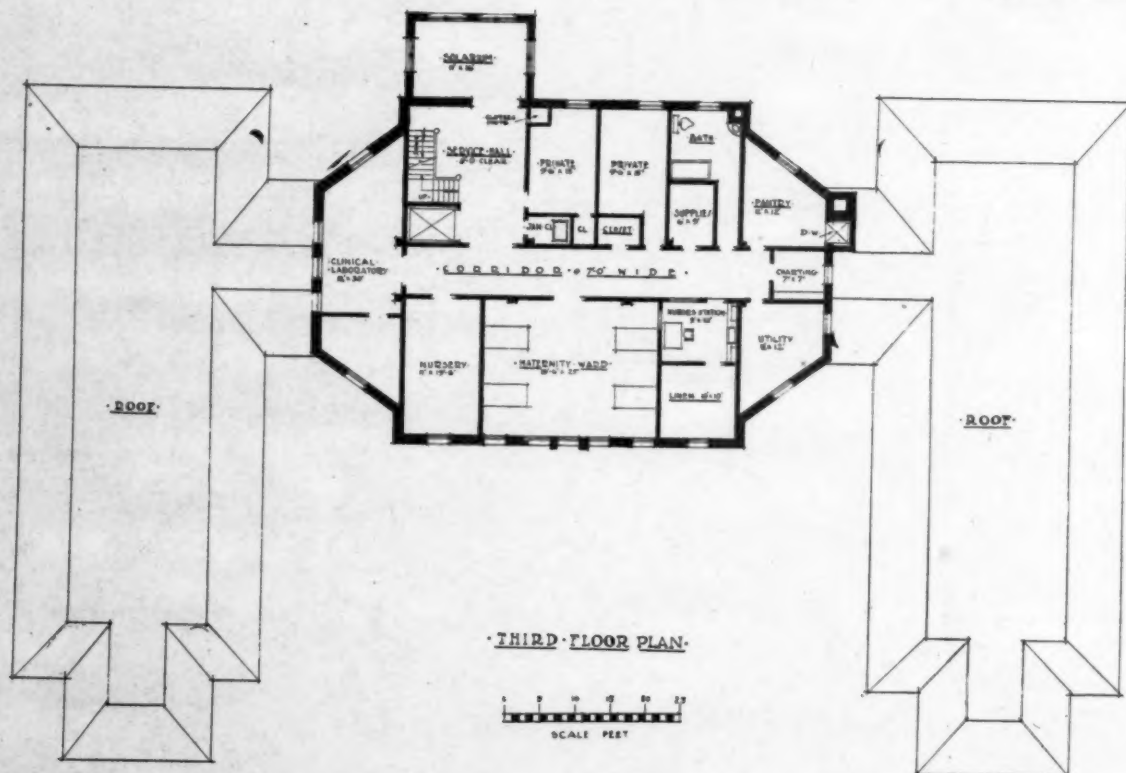
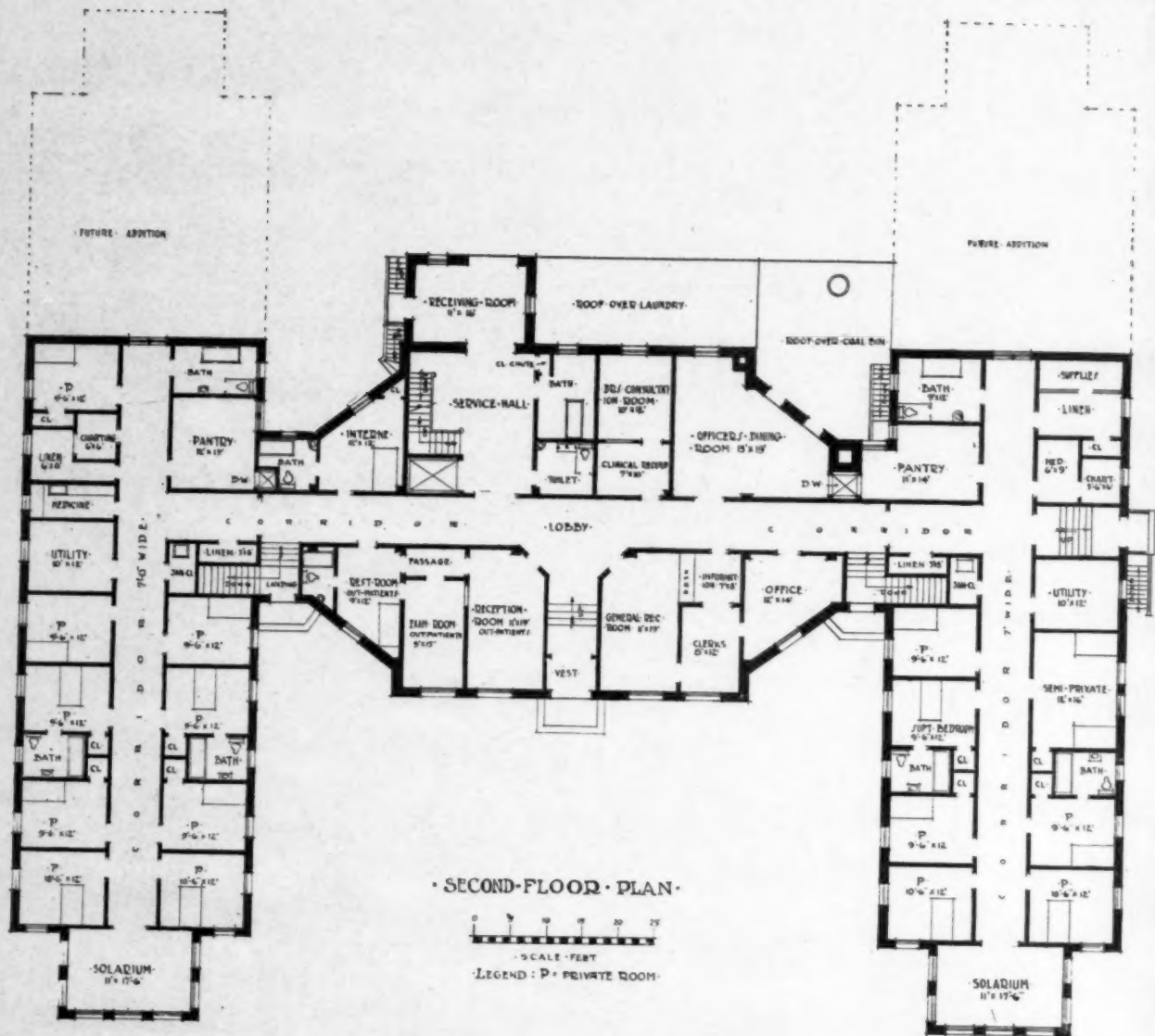
FOURTH FLOOR PLAN.
OPERATING DEPARTMENT.

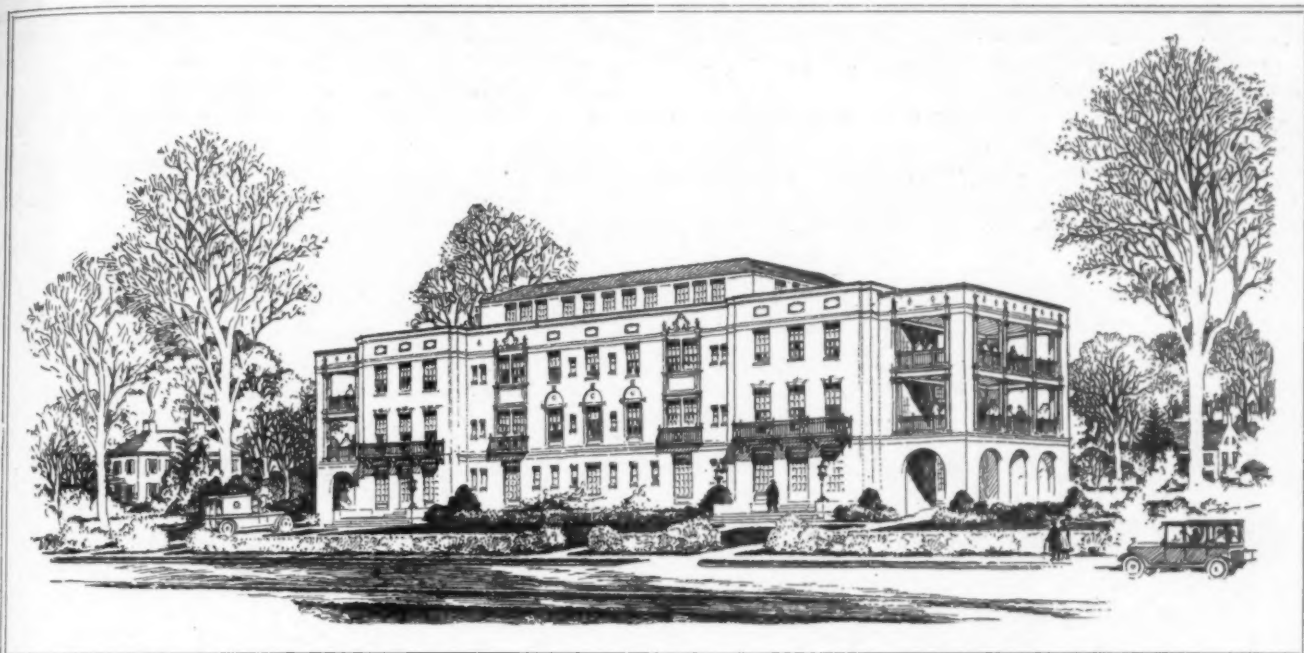


SECTION.



FIRST FLOOR PLAN.





The plan by D. Everett Ward, New York City, is attractive in arrangement but is not situated to the best advantage in regard to sunlight.

ARRANGEMENT FOR ADDITION TO NORTH END MINIMIZES SUNLIGHT

THE general composition of this plan is good and the external appearance of the hospital is attractive. It is unfortunate, however, that in a building, the long axis of which runs east and west, so many of the rooms for patients are placed on the sunless north side. The two long iron "gingerbread" balconies of the long facade not only detract from the appearance of the building but require a useless expense. While the entrance to the hospital and the entrance to the out-patient department are well separated, the lack of a dominating feature makes the approach confusing. The drive-ways are badly placed under the patients' porches. This would undoubtedly be very annoying.

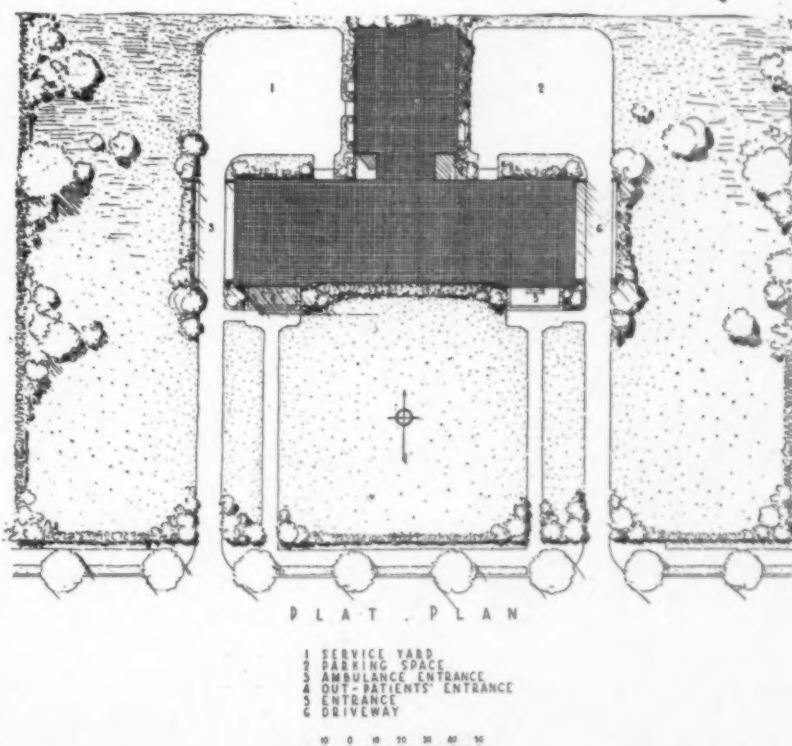
It would be difficult to enlarge this plan. The architect's suggestion that the hospital be extended by building additional stories to the north wing does not seem desirable, for in the winter, with a low sun, the sun's rays would be cut off by the main building.

While the basement is well arranged, it would be better to place the building higher and use the unexcavated portion for storage space.

The out-patient department is well arranged for a small hospital and the wards, semi-private, and private rooms, well distributed. It would be well, moreover, to interchange the maternity and women's wards so that the nursery would be on the same side of the corridor as the maternity ward. The location of the children's ward directly opposite the men's and on the north side of the building is not altogether a happy one.

The relative arrangement of the offices,

the out-patients' suite, and so forth, is good. The space given to the office and administration moreover, is entirely inadequate. The officers' dining room is larger than is necessary, while the nurses' dining room is too small. The kitchen storage is too limited unless the hospital is located very near to provision stores. The arrangement of male and female help in the north wing in which they are placed opposite each other is an unfortunate



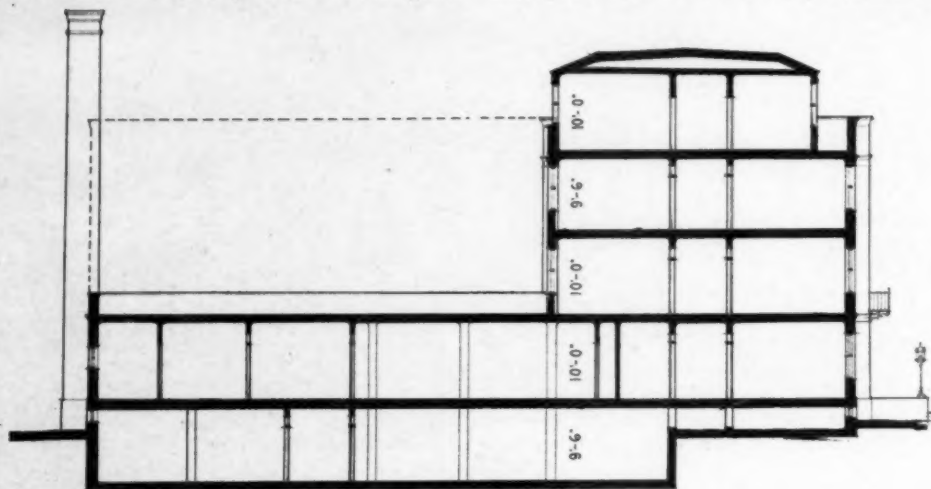
one. It would be better to have them more widely separated. The plan, moreover, makes it necessary for the employees to go through the kitchen and service room to reach their sleeping quarters.

No sitting room apart from the bedroom has been provided for the superintendent. The location of her room across the corridor from the nursery is not an altogether restful one.

If it seems wise to have a recovery room in a hospital

of this size it should be located near the operating suite. It would seem that the only excuse of a fourth floor would be to improve the exterior. It would be much more convenient to eliminate this floor and have the operating suite and delivery room placed in the second story of the north wing, thus bringing them near the wards.

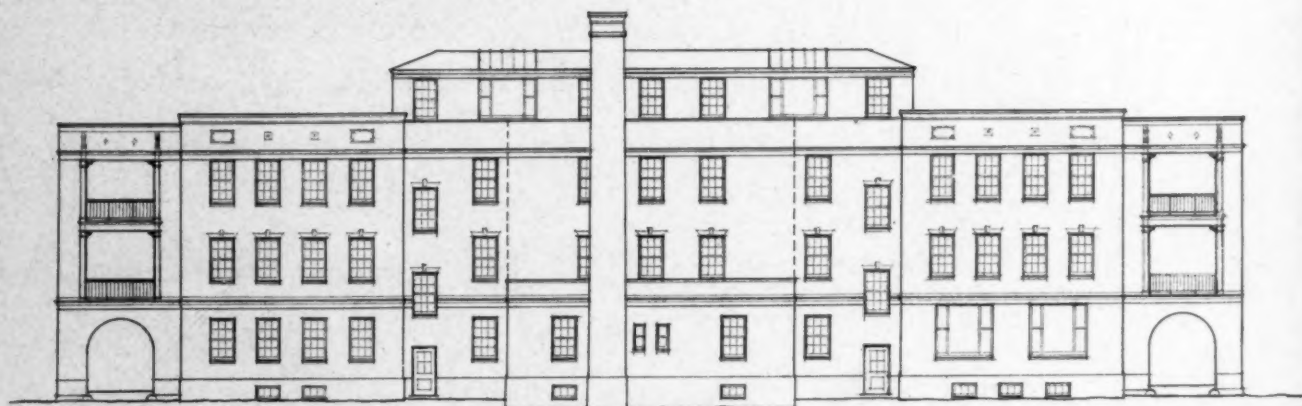
In general, the first floor is poorly organized while the second, third, and fourth are rather well arranged. The plan as a whole is very commendable.



SECTION



WEST ELEVATION

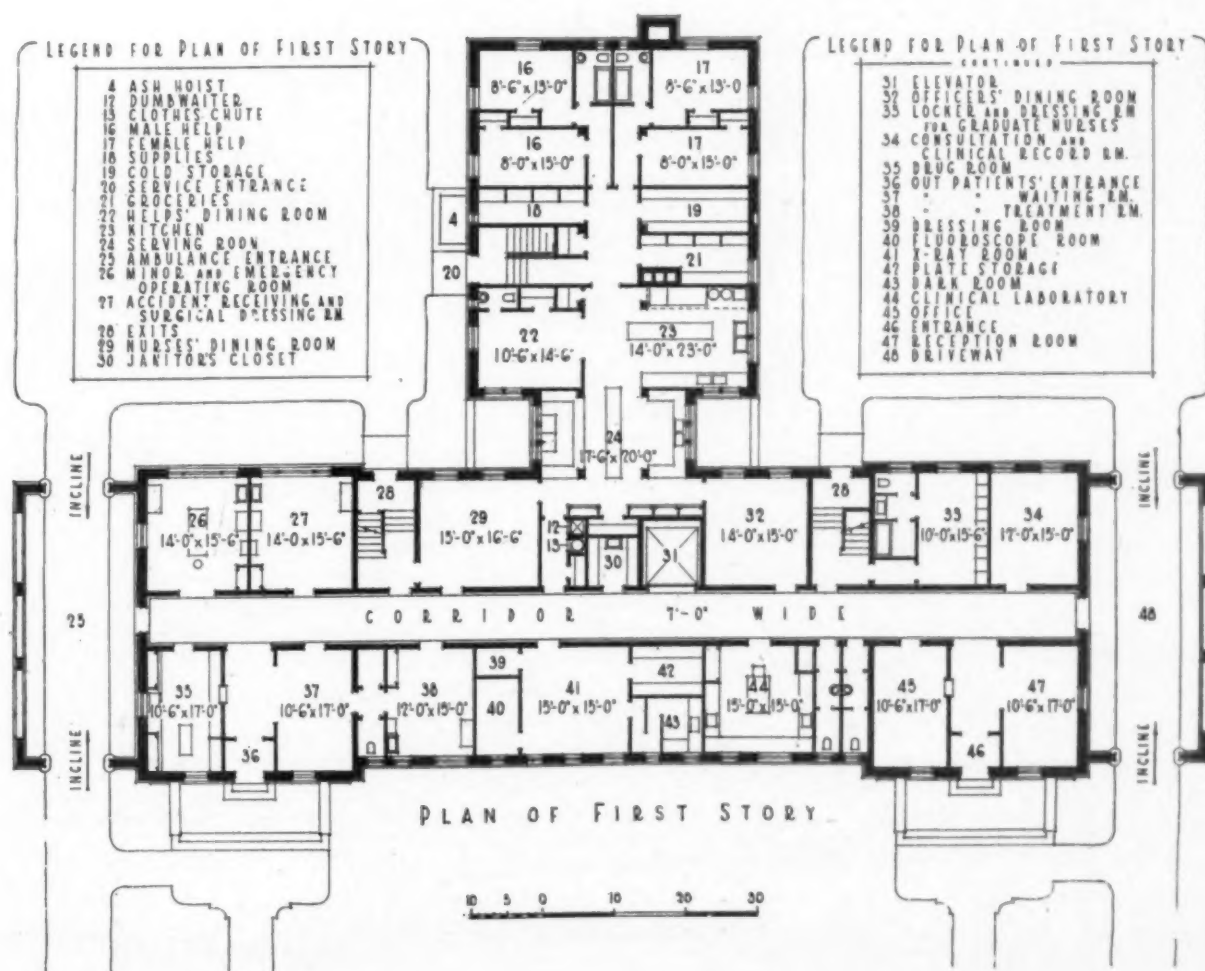
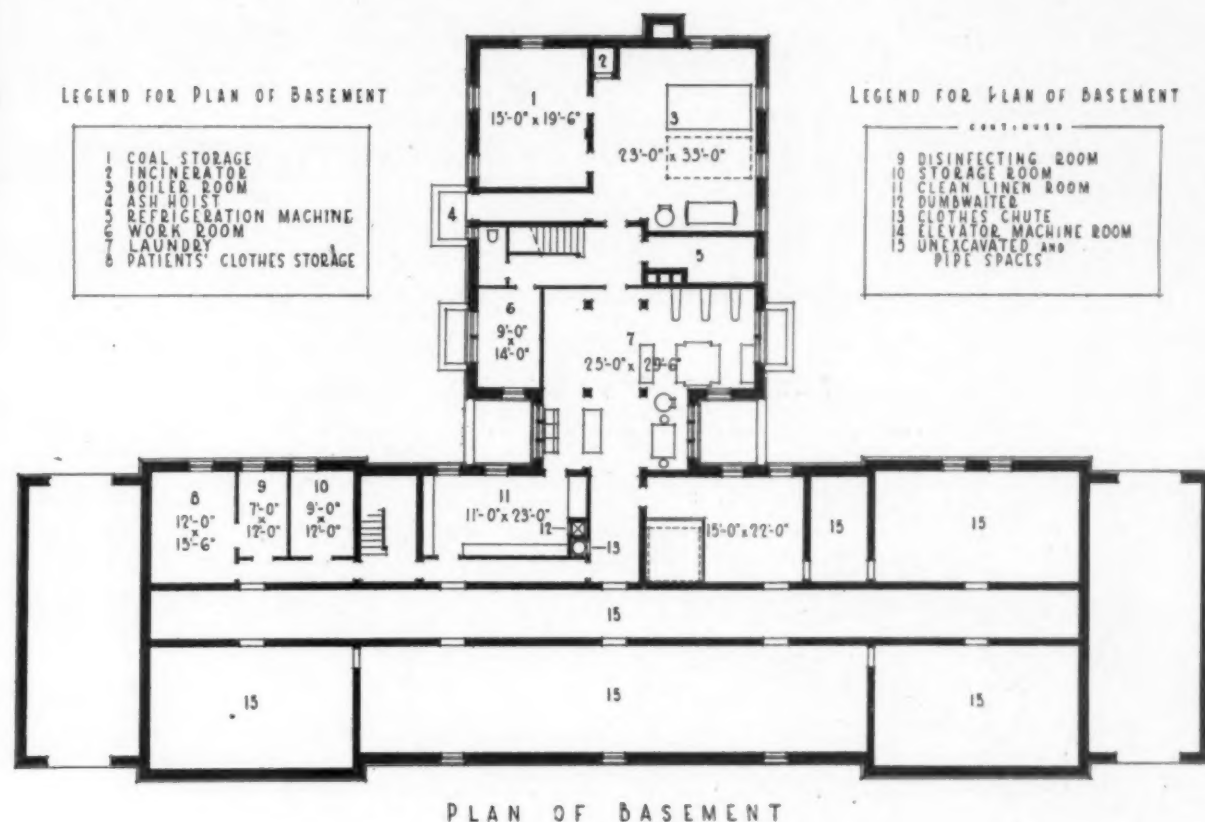


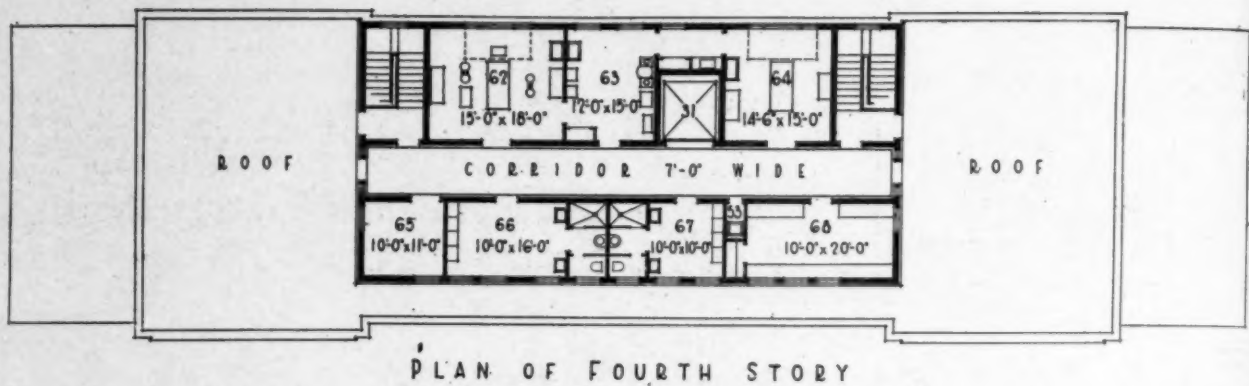
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NORTH ELEVATION

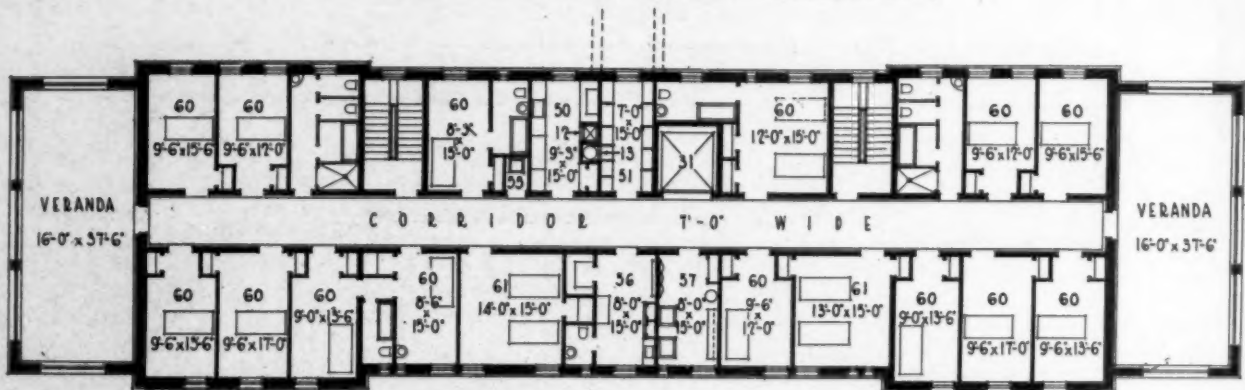
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31 ELEVATOR	65 ANESTHESIA ROOM
55 JANITOR'S CLOSET	66 DOCTORS' SCRUB UP AND DRESSING ROOM
62 OPERATING ROOM	67 NURSES' DRESSING ROOM
63 STERILIZING ROOM	68 NURSES' WORK ROOM
64 BIRTH ROOM	



LEGEND FOR PLAN OF SECOND STORY

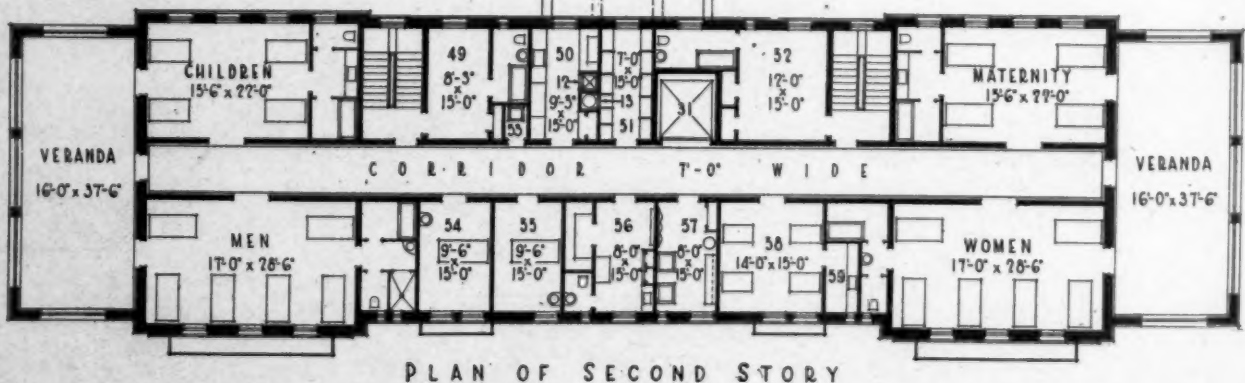
12 DUMBWAITER
13 CLOTHES CHUTE
31 ELEVATOR
49 RESIDENT PHYSICIAN
50 PANTRY
51 LINEN ROOM
52 SUPERINTENDENT
53 JANITOR'S CLOSET
54 SEGREGATION
55 RECOVERY
56 NURSE'S STATION
57 SUPPLY CLOSET
58 CHARTING SPACE
59 MEDICINE CLOSET AND SINK
60 UTILITY ROOM
61 NURSERY
62 INFANTS' WASH ROOM

ROOF OF SERVICE WING

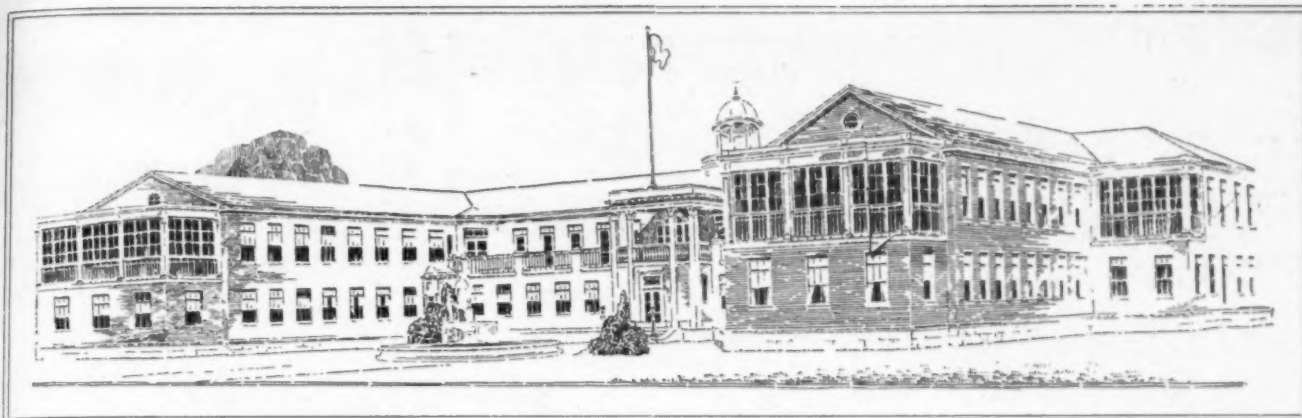
FUTURE EXTENSION
IN SECOND AND
THIRD STORIES

LEGEND FOR PLAN OF THIRD STORY

12 DUMBWAITER
13 CLOTHES CHUTE
31 ELEVATOR
50 PANTRY
51 LINEN ROOM
52 JANITOR'S CLOSET
53 NURSE'S STATION
54 SUPPLY CLOSET
55 CHARTING SPACE
56 MEDICINE CLOSET AND SINK
57 UTILITY ROOM
60 PRIVATE ROOMS
61 SEMI-PRIVATE ROOMS



10 20 30



The design by Resler and Hesselbach, New York City, is simple but is not especially pleasing in appearance because of the wide expanse of ground covered, and the low skyline.

PLAN DEVIATES FROM COMMON USE OF ELEVATORS TO RAMPS

THIS plan is a marked departure from the usual and embodies an attempt on the part of the architect to simplify the administration of the hospital by the use of ramps in place of an elevator. The building has an aspect of simplicity and comfort, but the exterior is not particularly pleasing. The building covers too much ground and is so low that it gives an unpleasant skyline. It would be even less attractive if the additions were built as planned. It would then give the impression of a long, low, barrack-like structure.

To be practicable for approach with ramps, the rear wing must of necessity be made entirely too long, thereby causing the loss of a great deal of space. By placing the operating suite, and probably some living rooms, on the third floor and installing an elevator, this wing could practically be eliminated and this arrangement would make a much better looking building. The initial cost of constructing this wing plus the additional time and effort constantly required by its use would more than off-set the initial and operating cost of an elevator.

In the absence of a basement, one-half of the hospital has been located on the ground floor. There is a serious question as to whether it is the best to have so much of the hospital first floor built on the ground. For one thing, this placement necessitates a considerable lay-out of water and steam pipes in trenches in the ground.

The first floor of one of the wings is given up wholly to the out-patient department. This would seem to fur-

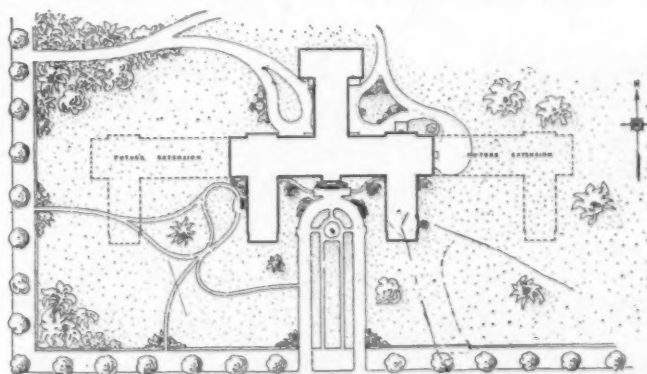
nish space entirely out of proportion to the rest of the hospital. In the opposite wing two four-bed wards are shown, one for men and one for women, directly opposite each other with a nurses' station, approached by a six foot corridor between them. This juxtaposition of the men's and women's wards is highly objectionable. Also the location of two quiet rooms just off the children's solarium and play room does not seem a happy one. We doubt, moreover, whether the arrangement of the doors leading from these wards would enable patients to be removed from them, should it be necessary to take them to other parts of the hospital. There seems to be little or no advantage in having a nurses' station that would be lighted at night, in the middle of two four-bed wards.

The comparative isolation of the maternity and operating rooms is excellent, but the arrangement of the suite is not ideal. Too much space is wasted in the hall and entry to the maternity rooms. The doctors wash-up room is too far away from the major and minor operating rooms.

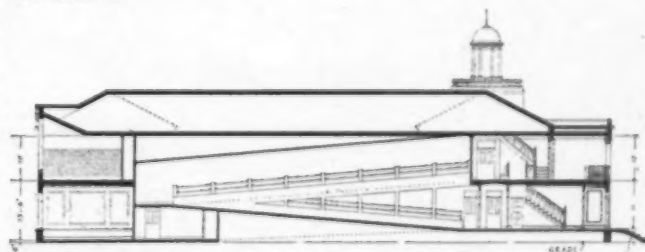
If future expansion to the plant is made, according to the plans, the distance from the outer wards to the operating and delivery rooms will become still greater, for even at present this distance is already longer than it should be.

The arrangement of several of the units is exceedingly good, and the nursing control and service is excellent.

Exit facilities in case of fire are well handled and exterior approaches to the kitchen, out-patient department, ambulance entrance, and wards are excellent, each approach being so located as to prevent interference.



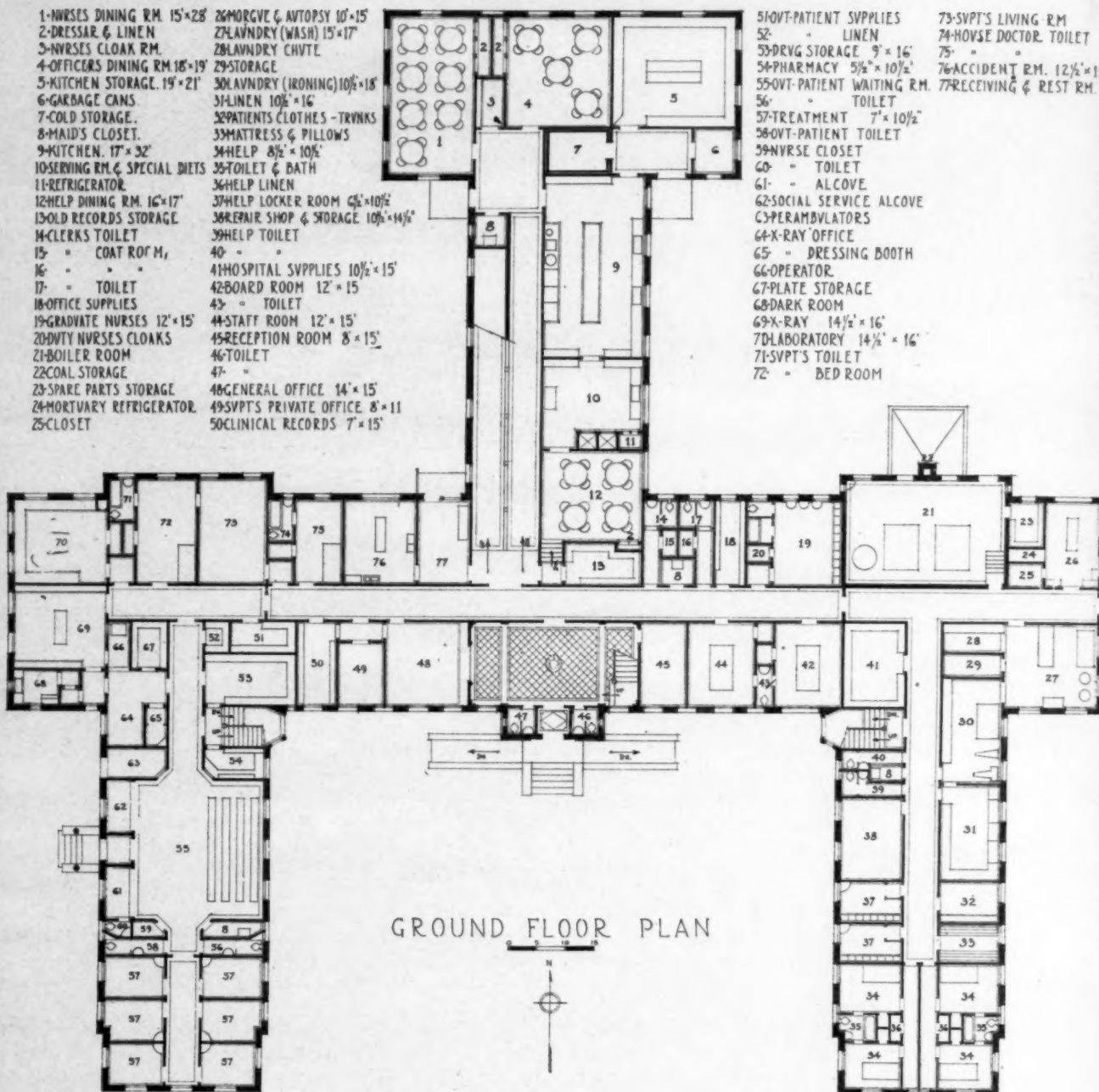
PLAN



SECTION THRU INCLINE 8% SLOPE
LOOKING EAST

- 1-NURSES DINING RM. 15'x28'
 2-DRESSING & LINEN
 3-NURSES CLOAK RM.
 4-OFFICERS DINING RM. 18'x19'
 5-KITCHEN STORAGE. 19'x21'
 6-GARBAGE CANS.
 7-COLD STORAGE.
 8-MAID'S CLOSET.
 9-KITCHEN. 17'x32'
 10-SERVING RM. & SPECIAL DIETS
 11-REFRIGERATOR.
 12-HELP DINING RM. 16'x17'
 13-OLD RECORDS STORAGE
 14-CLERKS TOILET
 15- " COAT ROOM
 16- " TOILET
 17- " TOILET
 18-OFFICE SUPPLIES
 19-GRADUATE NURSES 12'x15'
 20-DUTY NURSES CLOAKS
 21-BOILER ROOM
 22-COAL STORAGE
 23-SPARE PARTS STORAGE
 24-MORTUARY REFRIGERATOR
 25-CLOSET
 26-MORQUE & AUTOPSY 10'x15'
 27-LAVNDRY (WASH) 15'x17'
 28-LAVNDRY CHUTE
 29-STORAGE
 30-LAVNDRY (IRONING) 10'x18'
 31-LINEN 10'x16'
 32-PATIENTS CLOTHES-TRUNKS
 33-MATTRESS & PILLOWS
 34-HELP 8'x10'
 35-TOILET & BATH
 36-HELP LINEN
 37-HELP LOCKER ROOM 6'x10'½
 38-REPAIR SHOP & STORAGE 10'x14'½
 39-HELP TOILET
 40- " "
 41-HOSPITAL SUPPLIES 10'x15'
 42-BOARD ROOM 12'x15'
 43- " TOILET
 44-STAFF ROOM 12'x15'
 45-RECEPTION ROOM 8'x15'
 46-TOILET
 47- " "
 48-GENERAL OFFICE 14'x15'
 49-SVPT'S PRIVATE OFFICE 8'x11'
 50-CLINICAL RECORDS 7'x15'

- 51-OVT-PATIENT SUPPLIES
 52- " LINEN
 53-DRUG STORAGE 9'x16'
 54-PHARMACY 5'x10'½
 55-OVT-PATIENT WAITING RM.
 56- " TOILET
 57-TREATMENT 7'x10'½
 58-OVT-PATIENT TOILET
 59-NURSE CLOSET
 60- " TOILET
 61- " ALCOVE
 62-SOCIAL SERVICE ALCOVE
 63-PERAMBULATORS
 64-X-RAY OFFICE
 65- " DRESSING BOOTH
 66-OPERATOR
 67-PLATE STORAGE
 68-DARK ROOM
 69-X-RAY 14'x16'
 70-LABORATORY 14'x16'
 71-SVPT'S TOILET
 72- " BED ROOM
 73-SVPT'S LIVING RM.
 74-HOUSE DOCTOR. TOILET
 75- " "
 76-ACCIDENT RM. 12'x15'
 77-RECEIVING & REST RM.



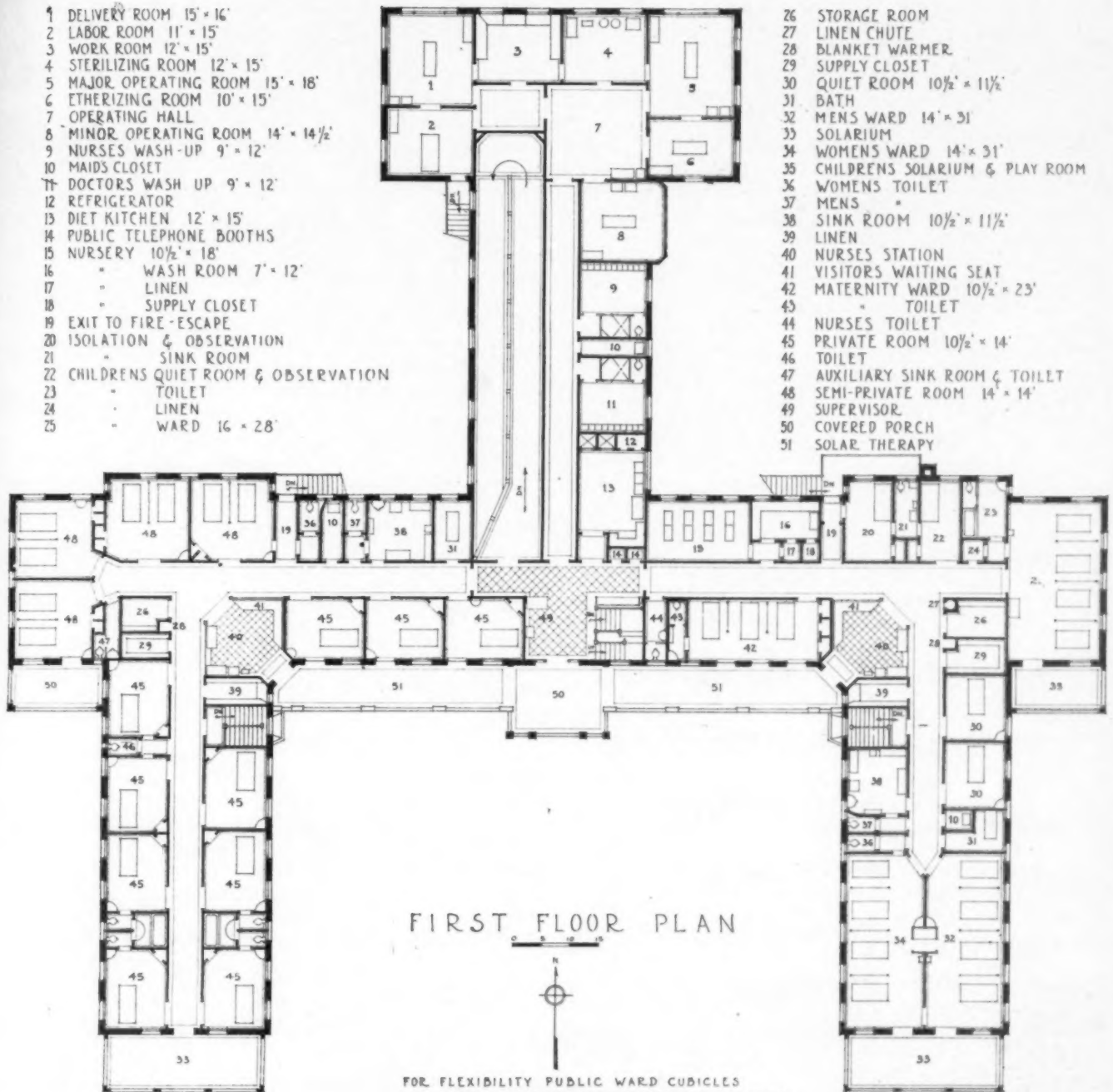
GROUND FLOOR PLAN



NORTH ELEVATION

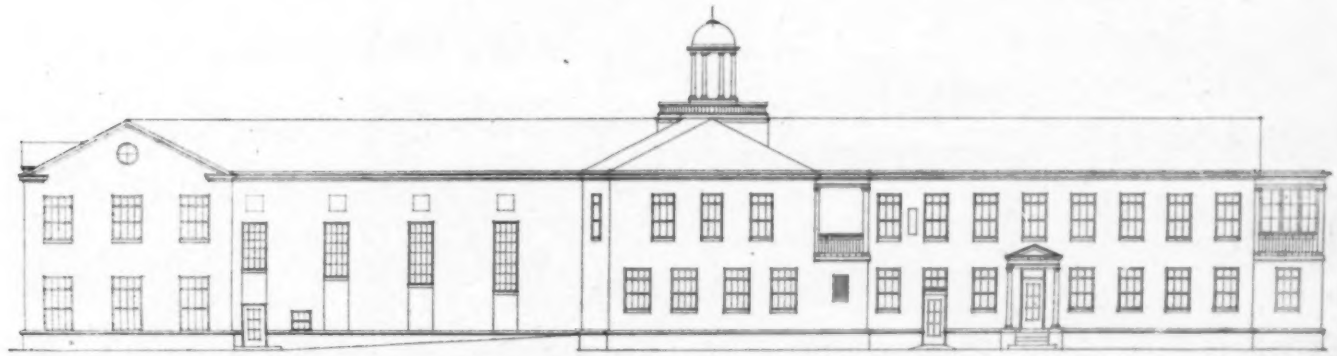
- 1 DELIVERY ROOM 15' x 16'
- 2 LABOR ROOM 11' x 15'
- 3 WORK ROOM 12' x 15'
- 4 STERILIZING ROOM 12' x 15'
- 5 MAJOR OPERATING ROOM 15' x 18'
- 6 ETHERIZING ROOM 10' x 15'
- 7 OPERATING HALL
- 8 MINOR OPERATING ROOM 14' x 14 1/2'
- 9 NURSES WASH-UP 9' x 12'
- 10 MAIDS CLOSET
- 11 DOCTORS WASH UP 9' x 12'
- 12 REFRIGERATOR
- 13 DIET KITCHEN 12' x 15'
- 14 PUBLIC TELEPHONE BOOTHS
- 15 NURSERY 10 1/2' x 18'
- 16 " WASH ROOM 7' x 12'
- 17 " LINEN
- 18 " SUPPLY CLOSET
- 19 EXIT TO FIRE-ESCAPE
- 20 ISOLATION & OBSERVATION
- 21 " SINK ROOM
- 22 CHILDRENS QUIET ROOM & OBSERVATION
- 23 " TOILET
- 24 " LINEN
- 25 " WARD 16 x 28'

- 26 STORAGE ROOM
- 27 LINEN CHUTE
- 28 BLANKET WARMER
- 29 SUPPLY CLOSET
- 30 QUIET ROOM 10 1/2' x 11 1/2'
- 31 BATH
- 32 MENS WARD 14' x 31'
- 33 SOLARIUM
- 34 WOMENS WARD 14' x 31'
- 35 CHILDRENS SOLARIUM & PLAY ROOM
- 36 WOMENS TOILET
- 37 MENS
- 38 SINK ROOM 10 1/2' x 11 1/2'
- 39 LINEN
- 40 NURSES STATION
- 41 VISITORS WAITING SEAT
- 42 MATERNITY WARD 10 1/2' x 23'
- 43 " TOILET
- 44 NURSES TOILET
- 45 PRIVATE ROOM 10 1/2' x 14'
- 46 TOILET
- 47 AUXILIARY SINK ROOM & TOILET
- 48 SEMI-PRIVATE ROOM 14' x 14'
- 49 SUPERVISOR
- 50 COVERED PORCH
- 51 SOLAR THERAPY



FIRST FLOOR PLAN

FOR FLEXIBILITY PUBLIC WARD CUBICLES ARE REMOVABLE THUS ADDING ONE BED PER WARD



WEST ELEVATION

COTTAGE HOSPITAL GARDEN PRODUCES VARIETY OF VEGETABLES

BY FRANKLIN R. NUZUM, M.D., SANTA BARBARA COTTAGE HOSPITAL, SANTA BARBARA, CALIFORNIA.

DURING 1921, friends of the Santa Barbara Cottage Hospital became interested in an experiment that we had undertaken. With their aid, two acres of ground were obtained for a vegetable garden, and a gardener and a part time helper were employed.

We had four objectives. First, to grow our own vegetables at less cost than we could buy them on the market. Second, that by proper timing of crops we could have continuously, fresh vegetables even at such times as they were not obtainable elsewhere. Third, that we might add to the possibilities of vegetable diets by growing some varieties that were not yet cultivated in this section of the country. Fourth, that convalescent patients might participate in some of the garden work.

The experiment has worked so satisfactorily that it seems worth while to call attention to it.

One development which was not anticipated was the possibility of mixing vegetables to make palatable dishes. Some tempting salads were the result. For example, a salad with an acid flavor can be made from a combination of sorrel, patience dock, lettuce and celery. The stocks of sorrel make an agreeable substitute for rhubarb. A little of that mixed with other vegetables gives a very good taste, even after thrice cooking, which is necessary for diabetic patients.

When one tires of the acid taste, there is the bitter taste of the composites with which to work. In the spring we have the dandelion of which the French variety is especially good. It differs from our dandelion in that it has long rosette-shaped leaves which turn outward. The dandelion flavor can be improved by projecting through it the summer chicory or, towards fall, the endive. There are various forms of endive. The Batavian form is crisper and has more substance than the ordinary form. It may be taken out of the ground in the fall and kept in the cellar throughout the winter.

The mustard family adds greatly to the list of flavors. All varieties of mustard are full of flavor and are better when combined with other things. The onion family is a source of great interest since there are many absolutely different types. Some of these are the Spanish onion, the chalet from China, chive of which we use the young green leaves, the top onion, the potato onion and the common early spring onion.

By growing all of the various kinds we can have onion flavor all the year around. And as in foreign types of cookery, the onion when used with other vegetables makes many splendid dishes. For example, when used with Italian squash which is comparable to the American variety of summer squash, a richer flavor and better substance are obtained. When the squash, cut or sliced, combined with eggplant and cooked in broth, with the addition beforehand of a little onion fried in oil, we have something which is really very good. The idea of adding a little onion fried in oil to many of these vegetables before cooking is capable of a great deal of elaboration.

There are great possibilities even in our common weeds. The poke weed makes a favorite dish. In the spring it sends up tender shoots which are almost as good as asparagus. Kohlrabi is an excellent vegetable which is not sufficiently known. While it is much like a turnip, it has a cauliflower flavor and will keep throughout the fall and winter in absolutely good shape. The fall crop is a good one. Other combinations and vegetables might be mentioned, but these give an idea of some possibilities which are unthought of in many kitchens.

We have altogether succeeded in having a fresh vegetable growing every day of the year. The climate of Southern California is responsible for that. But in other communities the possibilities of late fall and early spring vegetables are often not appreciated. For example, there may be a gap in your supply of fresh green vegetables during March and April.

This period before spring-sown spinach and mustard come in, need not be a bare one since there are several over-wintering greens such as late sown spinach and kale. For the first early greens a blend of French dandelion and patience dock is excellent. This dandelion, as mentioned before, has tender foliage and in the center a fat, white crown reaching down below the ground level. This is the best part of the plant. In yield and tenderness and absence of an undesirable bitter flavor, the cultivated dandelions are incomparably better than the wild lawn weed. Patience is a perennial dock which grows in cool weather and is ready for use at the



View of garden showing three varieties of spinach in the background.



Portion of garden where artichokes, leeks and young patience docks are growing.

same time as dandelions and for a long time after they are gone.

In our experiment we have succeeded in growing a considerable number of vegetables which are not obtainable on the market. With the help of the United States Department of Agriculture we have produced a few varieties as nearly as we can determine that had not been grown before in California. The season for their planting, the best method of cultivation and their usefulness as a food are being determined.

Our fourth objective, that of interesting convalescent patients in our garden has fallen short of expectations. But if proper stress were placed upon this, it might yet succeed. Frequently, hospitals are not so situated that ground is available for such a garden, but in many communities this does not hold true. The essential point in making a garden a success is having it cared for by a real gardener. Such persons may be found in every community.

In our own experiment we have found that the undertaking is altogether justifiable from the financial standpoint. A large variety of green vegetables have been on hand continuously. Our dietetic department has received valuable training in preparing unusual combinations of vegetables. And finally, our patients have had the experience of some unusual and altogether tempting salads and combinations.

A list of our plantings is appended.

Artichoke, green globe. Plant selected offshoots in summer. First harvest in second year.

Asparagus, Mary Washington. Suggest planting two rows eighteen inches apart and eighteen inches in the row; then an interval of six feet and two more rows. First harvest in second year.

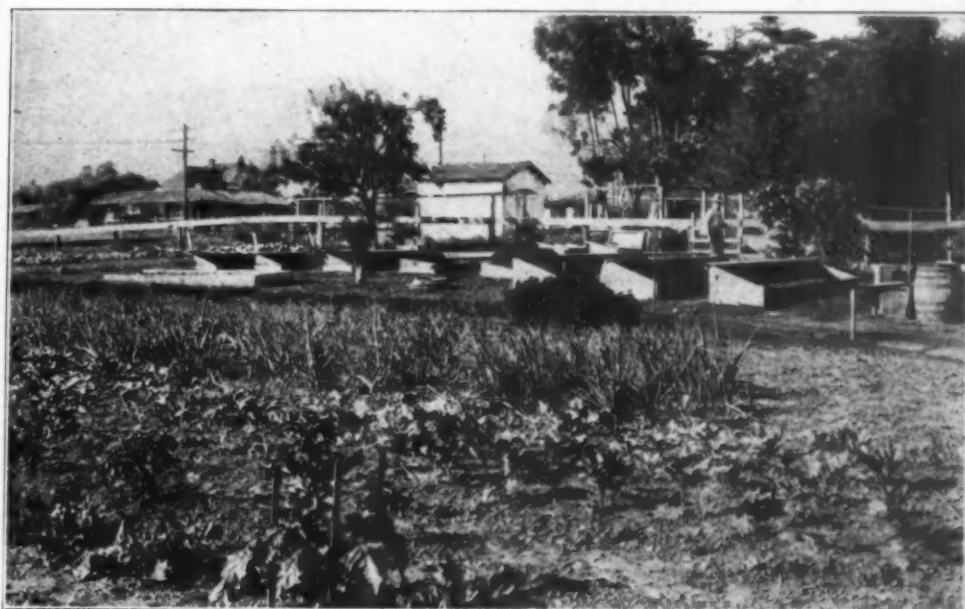
Basella. To be planted in cucumber season. Width of row four feet. In row one foot.

Bean. Bush. Stringless, green pod, prolific black wax. Pole. White greaseback. Kentucky wonder wax.

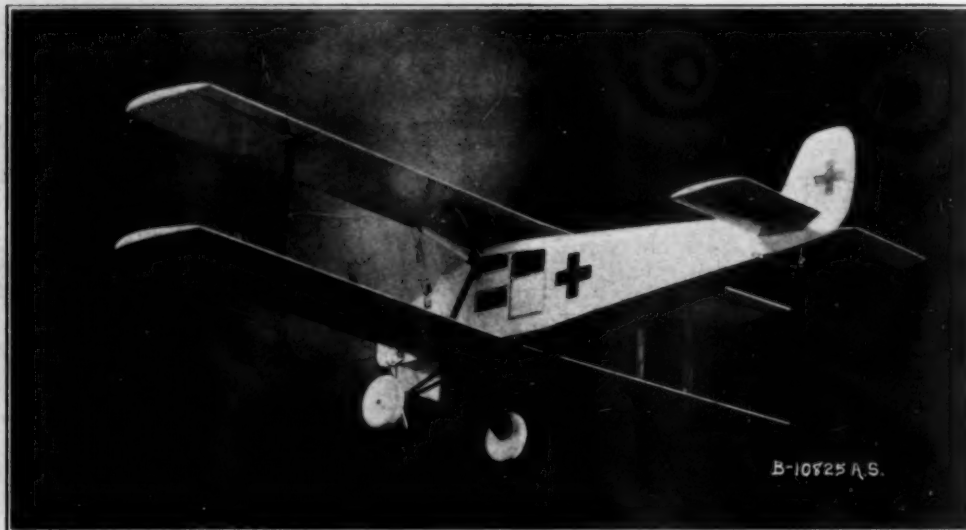
Beet. Early, flat Egyptian. Detroit, dark red.
Chard. Lucullus, White Swiss. March to September.
Cabbage. Glory of Enkhuizen. Any time. Crop in three to four months.
Cauliflower. A. & M. early, half early and late. July and August.
Carrot. Early French forcing, canvers. Plant any time. Crop in four months.
Celery. White plume, January to May. Crop in four to five months.
Celeriac. Prague. January to May.
Cucumber. A. & M. White Plant March to August. Crop two to three months.
Collard. Georgia. Any time. Loose heads. Crop in four months.
Cress. Curled also water cress, if running water is available. Box for seeding.
Corn salad. February to November. Crop in two to three months.
Chervil. Curled. January to August. Crop in two months.
Dandelion. Improved French. September to April. Crop in three months.
Eggplant. New York. January to August. Crop in four months.
Endive. Green curled and escarole. August to May. Crop in three months.
Kale. Tall Scotch. Any time.
Lettuce. New York, Iceberg, Trianon cos. All year. Crop in two to three months.

Kohl-rabi. White Vienna. Purple Vienna. Plant any time. Crop in four months.
Mustard. Fordhook fancy. Burpee's elephant ear. All year. Crop three to five months. Chinese White and other oriental forms.
New Zealand Spinach. Plant in partial shade, water freely. All year. Crop forty to sixty-five days.
Onion. Riverside sweet Spanish, White queen, Shallot, etc. Sept. to April. Four to six months.
Orach or mountain spinach.
Okra. April to July. Crop in three months.
Parsley. Curled. All year. Crop in three months.
Pepper. Chinese giant. Mexican Chili. January to July. Crop three to four months.
Radish. French breakfast. Icicle, Nerima Long. All year. Crop thirty to sixty days.
Rhubarb. Wagners giant. January to April. Crop second year.
Sorrel. French broad leaved. Any time.
Squash. Banana, Italian bush white, bush scallop, golden crockneck. February to October. Crop in two months.
Spinach. Viroflay. Summer Success. Any time. Crop forty to sixty-five days.
Witloof. Chicory. September to May. Crop two to three months. Same as celery. Store roots.
Chives. Tomatoes. Salsifi.

"Though this world were but a bubble
Two things stand like stone;
Kindness in another's trouble,
Courage in thine own."



Garden scene showing cold frames for the protection of tender vegetables.



U. S. ARMY AIRPLANE AMBULANCES ADVANCE TO THE FRONT

BY LIEUT. COL. W. R. DAVIS, M.C., U. S. ARMY, AND MAJOR BENJAMIN B. WARRINER, M.C., U. S. ARMY.

WHILE the Serbian army during its recent retreat, in November and December 1915, transported several wounded men by airplane and the French in 1917 developed an airplane ambulance which was tried out later on the "front," it is believed that airplane ambulances were first used extensively by the air service of the United States Army.

Soon after our entry into the world war, a number of aviation training schools were established throughout the United States, and within a short time several thousand cadets were being given flying training. As was inevitable, crashes occurred: many of them at considerable distances from the flying fields, and often in locations inaccessible to ordinary ambulances; or, if accessible, could be reached only by means of rough roads.

Need for Airplane Ambulances

Motor ambulances and medical officers were always kept in readiness on all flying fields during flying hours but it soon became evident that where crashes occurred at any distance from the field, some more speedy means of reaching the victims was necessary, as was also some means of getting them to a hospital quickly without the discomfort attendant on the transportation of men who were seriously injured long distances over rough roads in a motor vehicle.

Owing to the nature of the country surrounding Gerstner Field, Lake Charles, La., the necessity for some form of airplane ambulance was greater even than at other stations. Thus in February 1918 the commanding officer of that station authorized Major W. E. Driver, M. C., and Major William Ocker A. S., to convert a JN-4 airplane into an ambulance. This ambulance which was completed in a short time carried one patient in a special chair which allowed him to recline with the head and shoulders slightly elevated. It was very satisfactory and rendered excellent service at Gerstner Field.

Another model of airplane ambulance made out of a JA4D airplane with a Curtiss engine using the standard army litter was constructed at Ellington Field about April 1, 1918. Both ambulances proved so successful that in

July 1918, the director of air service ordered the construction of airplane ambulances at all flying fields.

Curtis Planes Used for Ambulance

Curtis planes, generally of the types used for training cadets, were used for the purpose and modified so as to enable them to carry one patient. Many of the fields modified the plans sent out so that the various ambulances differed greatly in construction. In some the patient was lowered into the fuselage from above, while in others the litter and patient were slipped in through a door in the side of the fuselage to the rear of the cockpit, as is done in the DH4 airplane ambulance described below.

The litters used also varied from modifications of the army litter to the Stokes litter which is used by the navy.

Ambulances of the type constructed at first, while of great value in providing prompt medical attendance to injured fliers and in getting them to a hospital without delay, possessed certain disadvantages. They could carry only a small amount of gasoline and had a short cruising radius so could not be used in crashes occurring at a great distance from the field. In addition, they could carry only one patient whereas in a crash there are often two men injured.

Liberty Motor Ambulance Superior

To secure an ambulance which did not possess these defects a DH4A airplane with Liberty motor was converted into an ambulance plane at McCook Field, Dayton, Ohio, in February 1918. This ambulance carries a pilot and two patients. The patients, fastened in Stokes litters, are placed in two berths back of the cockpit of the pilot. The door of the lower berth opens on one side and that of the upper berth on the other. The advantages of this ambulance over the other type are a higher flying speed, large cruising radius and a larger capacity which provides for the carrying of two patients. The disadvantage is that it requires a much larger landing field because of its high landing speed.

Both types of ambulances are at present used at the

various flying fields and both types have rendered excellent service but no new ones of either type are being constructed.

Ambulance Protection Not Sanctioned

Airplane ambulances have not yet been given protection under the Geneva Convention. The question of according such protection will probably be considered at the next meeting of the convention, but the airplanes heretofore used for ambulances have been service planes modified to enable them to carry patients and, before submitting the question of their protection to the Geneva Convention, it will be necessary to adopt an aerial ambulance which will be of a distinctive type and which cannot easily be mistaken for a combat plane.

It is also desirable to develop an ambulance which, while combining the advantages of both types now in use, will not have the disadvantages of either type. Such an ambulance is now being developed at McCook Field, Dayton, Ohio, by the air service. It will carry a pilot, medical officer and two patients. It is equipped with a 400 H.P. Liberty motor, and has an airspeed of 100 miles per hour and a landing speed of forty-five miles per hour. Other features are ceiling, 18,000 feet; endurance, four and one-half hours; and climb at ground, 1,000 feet per minute. Owing to its low landing speed and high power, it can land in and take off from a small field.

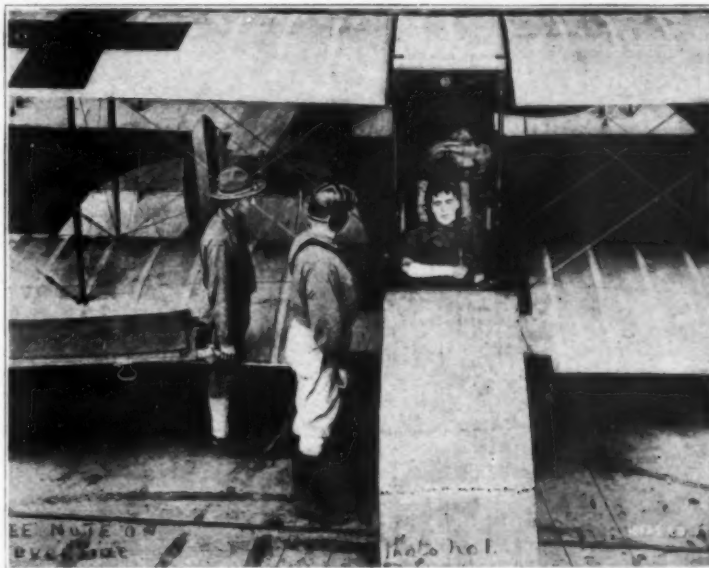
The pilot is located immediately back of, and above the engine, so that he has practically perfect vision for flying and landing the airplane. Since he is not located in the

center of the fuselage, and the width at cockpit is forty-six inches, the cowl on the right hand side of the fuselage is sloped downward very sharply, giving him almost unimpaired vision on that side. His vertical location with respect to the engine is such that he can see the ground within a few feet of the front of the plane when the tail is on the ground. This last is possibly due to the great depth of fuselage.

The ambulance compartment is well ventilated through openings near the top. It is unlikely that any exhaust fumes could reach the patients since the engine is, relatively, much lower than their compartment. The location of gasoline, and the fact that the piping to the engine enters the fuselage forward of fire wall, reduces the possibility of gasoline vapor forming in the fuselage.

A single crash-proof gasoline tank is carried in the upper wing on the center of gravity of the airplane. This location makes a simple gravity feed gasoline system possible and reduces fire hazard in case of a crash. Furthermore the gravity gasoline system gives the maximum in reliability and light weight.

The surgeon has sixty-five inches of head room and can stand almost erect in the fuselage. The aisle is of ample width to allow him freedom of movement in attending to the needs of his patients. The litters rest on roller platforms extending back in the fuselage so that the surgeon can easily move the litters back, should it be necessary for him to have access to the patient's feet. The normal position of the litters is such that the occupants ride feet first; when the tail skid is on the ground, they are inclined downward at an angle of thirteen degrees.



Side view of airplane ambulance showing patient in litter.

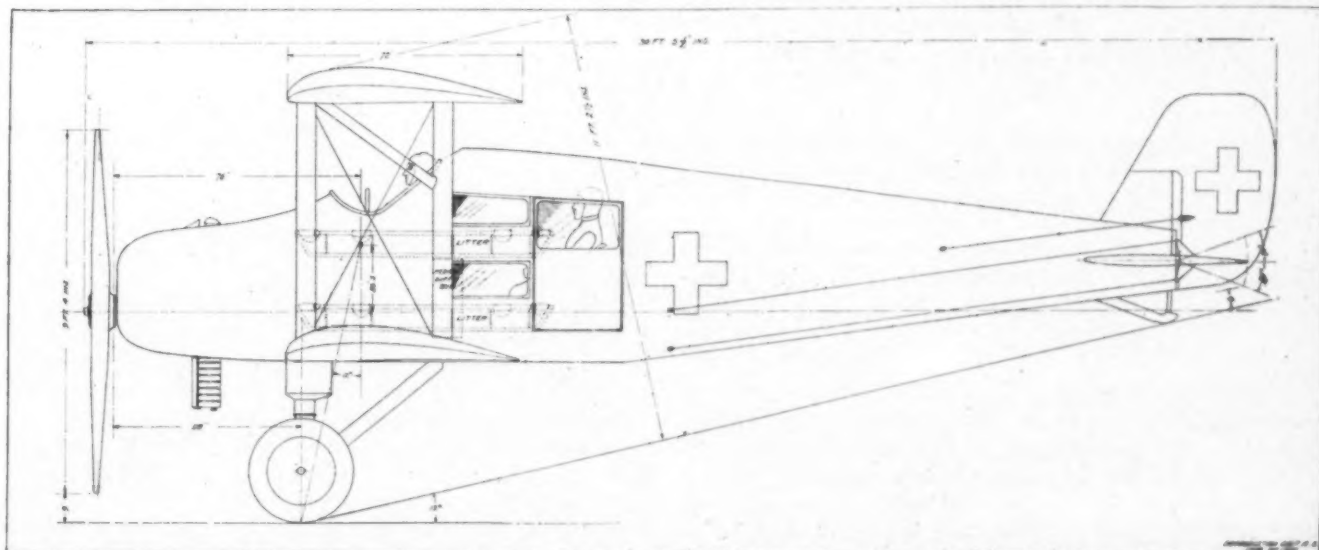


Diagram of Longitudinal Section of airplane ambulance showing litters for two patients.

The litters can be inserted normally, through the opening in the side of fuselage and then swung parallel to the longitudinal axis of the airplane. To facilitate handling the litters, duralumin tube rollers are mounted on the door sills and platforms. When the litter is in position, it is anchored by shock absorber cord snap hooks.

Designed for Crash Rescue Work

The ambulances above described are intended primarily for crash rescue work and, owing to their limited capacity, are not adapted to the transportation of large numbers of patients.



They have proved invaluable in making a prompt rescue of injured aviators and furnish a quick and comfortable means of getting them into a hospital. It is because of them that many patients who, on account of the nature of the injuries, were heretofore considered non-transportable can be safely transported to a well-equipped hospital.

Greater Capacity Needed

Ambulances of greater capacity are necessary for the transportation of large numbers of patients and there are several types of airplanes now in use which can easily and at a small cost be converted into ambulances which will carry six or eight patients. Airplane ambulances will very probably prove of great use in future wars, especially in rough countries with long lines of communication, and their value has been proven in the recent campaigns in Morocco and the Levant.

A SYSTEM OF VOLUNTARY EXTERNS

A new classification to be known as "voluntary externs," or clinical assistants, has been created by the Buffalo City Hospital as an auxiliary to its attending staff. This has been done in order that all medical practitioners in the immediate vicinity of Buffalo may have an opportunity to use the ward of the hospital. Any licensed medical practitioner of good repute desirous of serving in the aforementioned capacity may make application at once to the board of managers. Details covering the latter positions have not yet been worked out. In a general way it is planned to organize voluntary externs or clinical assistants for each of the various sections or specialties.

Physicians given this detail will make rounds with the attending and associates on service for stated periods covering three, six, nine or twelve months, and perform such other duties as may be assigned; at the expiration of a term of service appointees will automatically resign and make way for new men. Laboratory and x-ray facilities will, of course, be available to those taking this course.

In the future, after existing vacancies have been filled, men completing a course as clinical assistant will be given preference in filling regular staff positions.

Medical practitioners who send indigent patients into the Buffalo City Hospital are invited to follow up these cases in the wards as a matter of scientific interest. A system is now being perfected whereby a preliminary diagnostic report covering all patients admitted to the hospital as public charges will be sent to the physician last in charge of case before entering the hospital. Reports will include laboratory and x-ray work.

DR. ABBOTT ACCEPTS NEW POSITION

Dr. Maude E. Abbott has accepted the chair of pathology and bacteriology at the Woman's Medical College of Pennsylvania. Dr. Abbott comes to Philadelphia from McGill University, Montreal, Can.

Dr. Abbott, who is one of the pioneer women in the medical profession, is widely known throughout this country and Canada for her writings and lectures on the subject she will teach in the local college and upon which she is a recognized authority. She also holds an important position on the editorial board of the *Journal of the Canadian Medical Association*.

Dr. Abbott has written several books on medical science and allied subjects, as well as on historical subjects. Some of her best-known works are "Florence Nightingale as Seen in Her Portraits," "Classified Directory of Sir William Osler's Canadian Period," and "Historical Sketches of the Medical Faculty of McGill."

AUGUSTANA HOSPITAL HEAD DIES

Dr. Matthias Wahlstrom, superintendent of Augustana Hospital, Chicago, Ill., since 1904 and widely known in medical and educational circles, died August 15, following a stroke of apoplexy suffered April 21.

Dr. Wahlstrom was born in Sweden on Nov. 28, 1851. He was educated at Augustana college at Rock Island, Ill., being a member of the first graduating class of that institution. After two years' study at the Augustana Lutheran Theological seminary he was ordained a Lutheran pastor in 1879.

From 1880 to 1904 he was president of the Gustavus Adolphus college at St. Peter, Minn., relinquishing the position to come to the hospital here. In 1901 the King of Sweden knighted him with the Order of the North Star in recognition of his educational work.

RECENT HOSPITAL DECISIONS

By DOROTHY KETCHAM, ANN ARBOR, MICH.

Not Liable for Act of Shareholder

The plaintiff following an injury in an automobile accident was taken to the Davis-Fischer Sanatorium in Atlanta where he claimed that L. C. Fischer rendered him "unskillful, improper, and negligent services as such surgeon, and because of such services he (the plaintiff) has been permanently disabled and injured." It seems that Fischer was a practicing surgeon, the agent and surgeon of the Davis-Fischer Sanatorium Company; that the company maintained a hospital for the public incorporated under the name "Davis-Fischer Private Sanatorium" with a capital stock of \$5,000. Fischer was one of the principal stockholders of the corporation. The sanatorium demurred claiming that no cause for action was set forth; and that if there was any liability, it was upon the physician and surgeon Fischer and not upon the hospital, inasmuch as the alleged negligence and injuries complained of were the duties of the physician under the laws of Georgia.

The Court held that there was no cause of action against the hospital. The fact that the surgeon was one of the principal stockholders in the defendant corporation would not render the corporation liable for unskillful and improper treatment of the patient; nor does the fact that the company was largely under his control alter the situation. There was no statement that the defendant corporation undertook to direct the surgeon in the method of treatment or services rendered. The fact that Fischer was the agent and surgeon of the company does not render the company liable *unless it is declared and shown* that the act of the agent was by the command or direction of or within the scope of the agent's employment.

"Where a hospital contracts to furnish medical or surgical attention to one, and acts in good faith and with reasonable care in the selection of a physician or surgeon and selects an authorized physician in good standing in his profession, it has fulfilled its obligation, and cannot be held liable for any want of skill on the part of the surgeon employed. The master is held liable for the tortious acts of the agent upon the theory that the agent is controlled and acts under the direction of the master and within the scope of his duties. There is no allegation in the petition here to the effect that the sanatorium company directed the surgeon how or in what way to treat the patient." (*Black vs. Fischer* 117 S E 103.)

Not Liable for Contraction of Smallpox

The following case which came before the Supreme Court of Alabama April 19, 1923, involved the question of the contraction of smallpox by a patient. The evidence submitted, showed that the hospital itself received both pay and charity cases; that it had "no house surgeon, nor medical experts of any kind, and did not undertake to diagnose the ailments of the patients it received. It receives no patients except upon the application of a physician, with his accompanying diagnosis. The nurses and attendants employed by the hospital have nothing to do with the making of diagnoses, and in caring for patients are required to follow the directions of the physicians in charge of each particular patient."

It seems that the intestate entered the hospital March 1, 1920, underwent a surgical operation and returned home March 6. On March 14 or 15 his own physician was

called, found him with high fever and in a delirious state and four days later a rash developed which was diagnosed as smallpox by Dr. McElrath. He died April 1. During the time he was in the hospital he was under the care and supervision of Dr. Savage. Three other cases of smallpox were also reported among patients or visitors after leaving the hospital.

The court points out that certain facts must be established, (1) "That the plaintiff's intestate died of smallpox; (2) that he contracted the disease while he was a patient in the defendant hospital; (3) that this resulted from infection communicated to him from another patient who was in the hospital during the intestate's presence there; (4) that defendant's nurses, agents or servants who controlled or managed the hospital knew that such other patient was afflicted with smallpox; and (5) that they so negligently handled said patient that they negligently exposed the intestate to infection from him."

The fact that the man died of smallpox is not disputed. The defendant contended that the evidence was insufficient to support two findings of fact; (1) that there was, during the intestate's presence in the hospital, another patient afflicted with smallpox and; (2) that the hospital employee's who had the care and control of such person, knew that he was thus afflicted. There apparently was nothing to indicate the presence of smallpox in the institution. One man with "a bumpy or scaly face," declared by the witnesses to have smallpox, had not been so diagnosed after continued observation. This conjectural inference, and the implied knowledge that employees knew of the situation is not defensible as substantial evidence upon which to base a verdict. "In our view of the case it is unnecessary to determine whether in the trial judge's oral charge to the jury, he improperly extended the duty of nurses in a hospital of this character, by the assumption that they might discover that the physician in charge of any patient had erroneously diagnosed the case as non-infectious; and by the requirement of such supposed discovery, they should, in disregard of the physician's opinion, treat the case as infectious."

The case was reversed and rewarded for the errors noted. (*Gadsden General Hospital vs. Bishop* 96 So. 145.)

Not Exempt From Special Assessments The Minnesota Constitution exempts from taxation "public burying grounds—Act 9, sec. 1. The Supreme Court of that state April 13, 1923, held that this exemption was not made to depend upon the character of the owner, but upon whether the property is in fact public burying grounds." It was admitted that the plot was a public burying ground, but also the ground was owned and operated by an association for pecuniary profit. The Court held, however, that the land was exempt from general taxes, but not from special assessments. This holding seems to be contrary to the usual opinion.

State v Crystal Lake Cemetery Assn. 193 NW 170.

AS IT IS WRITTEN

Huge Stockhausen is suffering from injuries to his wrist, received while working in the interior of a house, when a beam, which had a nail entered Mr. Stockhausen's wrist, injuring it very badly.—*Monroe (N. Y.) Gazette.*

THE INFORMATION DESK

THE PROPER CARE OF ALUMINUM

The increasing use of aluminum in hospital dietary departments has naturally developed the question of the proper care and cleaning of this metal. Aluminum today is used not only for cooking utensils and serving trays, but for many of the larger pieces of fixed equipment, such as coffee urns, steam jacketed kettles, and other utensils. Methods that were formerly successful in the cleaning of iron ware, copper ware, tin and other utensils do not satisfactorily solve the problem of cleaning aluminum. Each utensil must be cleaned with that type of cleaner best adapted to the metal of which it is made.

There is no heaven-sent formula which solves any cleaning problem. Every type of cleaning requires a certain amount of mechanical work, the application of sufficient "elbow grease" to accomplish the results. Iron must be scoured to be kept in proper condition. Copper, to be presentable, must be treated with vinegar and salt or some abrasive. To preserve aluminum ware in the proper condition, it should be rubbed with steel wool and soap.

Do not make the mistake of cleaning aluminum only at rare intervals. Fully one-third of your time and energy can be saved by cleaning such utensils daily. Every time an aluminum utensil is washed, it should be rubbed with a non-alkali abrasive of some kind so as to remove discoloration, stains, deposits or burned spots which may have developed. With daily attention, very little rubbing is necessary. In other words, each utensil is kept clean and not permitted to reach that state of neglect requiring long and arduous scouring.

Kitchen authorities are agreed that the best abrasive to use on aluminum is a number "0" and number "00" steel wool with the addition of soap. This can be bought in bulk or in small packages, either combined with the soap or bought separately and rubbed on the soap while being used. Do not make the mistake of not using plenty of soap, as this makes it much easier to clean the surface of the metal.

Aluminum trays present a special cleaning problem. Almost every hospital executive has had experience with the smudgy discoloration which rubs off onto uniforms, aprons, tray covers or linens. While it is practically impossible to entirely eliminate this difficulty, much can be accomplished through proper cleaning. Special care should be used in the cleaning of serving trays. Use plenty of clean hot water and a high grade soap which contains a negligible per cent of free alkali. After the trays have been thoroughly washed in this manner and rinsed in clean hot water, they should be carefully dried before they are stacked. This will do more than anything else to do away with the discoloration.

At least once a week the trays should be scoured with a good cleaner or with "00" steel wool and a soap that will make a good lubricant. After being thoroughly scoured, they should be washed and rinsed in clean hot water, and should not be nested until after they are thoroughly dry.

Many superintendents have found that unusually good results follow if the trays are washed in water containing a five per cent solution of sodium silicate, commonly known as water glass, and a small amount of good soda. The application of the soda and sodium silicate upon the metal results in a slight reaction which forms a protective coating over the metal and largely prevents the formation of the greasy smudge generally found.

MARKERS FOR APPAREL

Much time will be saved and much confusion prevented if all who send apparel and individual pieces to the laundry are furnished with the same kind of marking tapes or labels and required to affix the marks in specified places. In some hospitals the nurses and student nurses mark their articles in various ways and in sundry places, some using ink, some woven labels and some printed labels. Some of the characters used in making the marks are very hard for the assorter to see, as they are often less than one-eighth of an inch high, while other marks are made with pen and ink in a very unsightly manner, consisting often of a large scrawl.

In every hospital a standard marking label should be adopted, and every mark should be put on a given piece in a specific place, prescribed by the head of the laundry department. This will reduce the time required to assort the articles, which is quite an important item, and will also prevent errors. If either woven labels or printed labels are bought, the characters of the mark should be in plain letters and figures that one with ordinary vision can see at a distance of four feet. If the laundry has a marking machine it is a good plan to make a sufficient number of marks for each person, on ordinary marking tape. It is best to make a series of marks for each person on one piece of tape, leaving them uncut, so that they will not become scattered. The expense of this will be very small, and it will more than be paid by the time it saves.

CONSERVATION IN SMALL BITS

A careful check on the issue of office supplies of the hospital will more than repay the effort involved. In most hospitals obsolete blank forms, printed on one side only, can be utilized in lieu of scratch pads, or if memo pads are required for certain of the offices, the rough memo pad supplied will probably answer the requirements just as well as the more expensive memo pads.

NURSING AND THE HOSPITAL

Conducted by CAROLYN E. GRAY, R.N.,

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HOW CAN WE CARE FOR OUR PATIENTS AND EDUCATE THE NURSE?*

By M. ADELAIDE NUTTING, PROFESSOR, NURSING & HEALTH, TEACHERS' COLLEGE, COLUMBIA UNIVERSITY, NEW YORK, N. Y.

IT IS with much hesitation that I attempt to discuss even briefly a subject around which controversy has centered with increasing energy for the past twenty years. Here is a matter which is occupying the thoughts and testing the capacities of a very large number of persons representing varied and important elements in society. And from the persistence of the controversy over so long a period as well as the form which it has sometimes taken, it deals obviously with a problem of considerable consequence, and one in which a good many interests are involved, otherwise some solution would surely have been reached years ago.

Method Serves Two Purposes

The subject upon which I am asked to speak is explicit in its wording, "How can we," it says, "at the 'same time' do these two things—educate the nurse and care for our patients?" To those unfamiliar with the system through which these two things are now performed in the hospitals of the country, it might seem as if the question brought forward a new and interesting idea. But those present here today know that the education of nurses has never been carried on in any other way than through the care of patients, chiefly in hospitals, and that this has been the method and virtually the only method, in use for a full fifty years. A conservative estimate would probably say that not less than eighty per cent of the entire nursing service of most of our general hospitals is given by students, and there are many hospitals, of course, particularly the small ones, in which the proportion of student service would be much higher. Recent records of the bureau of education show that 55,000 students are thus serving as nurses in about 1,755 hospitals, each of which owns and conducts or cooperates in conducting a school of nursing.—The total bed capacity of these hospitals approaches 320,000.

May we venture to assume then that after half a century of unrestricted experiment in this field of education and in caring for the sick by means of student nurses, we are in a position to appraise the results of the system, and to determine how far it satisfies the needs in the two fields it is intended to serve.

For many centuries both in hospitals and homes the sick were cared for by the religious orders who gave to the uttermost of such knowledge and skill as they had, toiling uncomplainingly and without reward. Sometime during the last century the Augustinian Order of Sisters rounded out 1,200 unbroken years of care of the sick in the Hotel Dieu in Paris.

But no serious attempt to educate nurses was made until Florence Nightingale's famous school of nursing was established in London in 1860. The system was introduced into this country in 1873 at Bellevue Hospital, New York City, and was shortly followed by others.

All of these early schools were established, financed and directed by special committees created for that purpose outside of the hospital. The extraordinary reforms which they brought about in the care of the sick, in the management of domestic affairs, and in the general morale of hospitals are matters of history, and these together with the saving of expense in nursing effected by the services of the students of the schools led hospitals to desire fuller control of so useful an agency and to offer to relieve the committees of the burden of maintaining the schools. So shortly we find them more or less entirely turned over to the hospitals with which they had been connected and eventually completely absorbed by them.

Growth of Nursing Schools

Within a few years the idea was generally accepted that the education of nurses was the prerogative of hospitals, and they were the only places in which Schools of Nursing should be established. During the past fifty years this system of training has become deeply entrenched in tradition and in usage and has been carried out to the extreme limit of practical possibility. A glance at the statistics showing the growth of nursing schools called into being by rapidly multiplying hospitals will affirm this, for they record:— 400 new schools in the ten years from 1890-1900; 689 within the next decade; and 634 in the ten years between 1910 and 1920. A good many of these hospitals, particularly the smaller ones, could hardly have been maintained had they been unable to secure the free nursing service which a school provided. But it is certainly true to state that this system of nurs-

*Paper presented at the second annual meeting of the Pennsylvania Hospital Association held at Philadelphia, April 26-27, 1923.

ing has contributed enormously to the expansion of hospitals throughout the country, and to the improvements and advances in medicine and surgery.

Schools Increase With Hospitals

Not only has this phenomenal number of new schools been created, but existing schools have steadily and notably enlarged in response to the extension of the hospitals with which they are connected. In whatever direction the hospital has grown, the school has stretched itself to meet the new nursing demands. In the early days, in order to make good nursing possible, the student nurses had to take hold of the surroundings of their patients and keep them clean and decent. They did a good many things then of a domestic and unskilled kind because no other way was provided for getting them done—sweeping and cleaning, care of lavatories and linen, and a host of other duties became incorporated, as it were, in the range of nursing duties, and custom fixed them there. Thus the student nurses have been including in their service a very considerable amount of labor, which should long ago have been relegated to other workers. The investigations of the committee on nursing of the Rockefeller Foundation found that approximately one-fifth of each student's time was employed in such routine unskilled duties. I am reminded here of a conversation some years ago with the head of an important school of nursing who admitted that her students had to do rather an unusual amount of such unskilled domestic work. When pressed for reasons she said, "But you know it is so difficult to get servants, and besides the pupils do it so much better."

In quite another direction and of much importance in the care of the sick has been the very wide-spread use of pupils as head-nurses. This began very early and is interestingly described in an article on Bellevue Training School, written thirty years ago. "It came to be considered a part of the system," the writer says, "that by extending the course of the training from one year to two, the services of the nurses after they had obtained the practical training of the first year could be retained and utilized as head-nurses." And at a later period the third year which was added to the course of training with the intention of enriching and improving instruction resulted in the very extensive use by hospitals of students in supervisory positions.

In one large hospital every student, whether she desired it or not, or whether she possessed real fitness for the task of directing others had nevertheless to serve as head-nurse for a definite period. This is a very easy, convenient and inexpensive if not an entirely equitable way of filling positions which are of much importance and responsibility in hospital administration. It grew into a serious abuse, and became so extensively used that in a good many hospitals virtually the entire supervisory staff was made of students. This custom is now abandoned in many of the leading hospitals and is only mentioned to show the extent to which students of the school of nursing were used in contributing to the care of the sick.

Care of Sick—Successful Experience

One further way in which students have been applied to the care of the sick has been in the special service of individual private patients. This, too, began early for the writer about Bellevue points out that in the second year of training "nurses were at first very generally sent out to private families and in this way they added to the funds of the school." This particular custom was

gradually abolished, but the development of large private departments in general hospitals has frequently meant the excessive use of students for the special care of private patients within instead of without the hospital.

In summing up this phase of our discussion, we must, I think, reach the conclusion that whatever has failed it is not the care of patients by student nurses. That, indeed, has gone beyond the wildest flights of imagination. Nowhere in the history of education can one find anything comparable to the way in which the body of student nurses in hospitals have devoted themselves to the needs of the sick. When, therefore, we talk about care of the sick through the education of the nurse we know that we stand on the solid ground of long, extensive, and, from one standpoint, that of the hospital, successful experience.

Debt Owed Student Nurses

I have often thought that we fail to understand and consequently to appreciate at anything like its value, the contribution to public welfare which the students of our schools of nursing have made in caring for the sick in the great hospitals of this country. For the past fifty years, in succeeding generations, they have unstintedly given day and night of their youth and strength and sometimes their health. Our debt to them is a very large one, and we should be more generous in our recognition of it and of the unique importance of these services so freely and generously given.

So far we have been reviewing the care of the sick as it has been carried on concurrently with the education of the nurse. Let us turn now to the school of nursing through which this education has been conducted. As a school, education and that alone must be its object and any work such as the care of the sick, would be incidental only to the accomplishment of that object. Here, however, we seem, as a matter of fact, to have placed first the work to be done, and the education of the nurse appears as a kind of by-product of that work. How has this system affected the education of nurses? We know how well the nurse so trained is meeting the needs of hospitals in caring for their sick. How is she meeting the larger and different needs of the community outside of them?

Criticisms of Nursing Education

If we judge by facts, such as the demand for nurses which keeps steadily far ahead of the supply in about every branch of their work or by the way in which the work itself has advanced and expanded taking in one new realm of activity after another, not only in hospitals and in the wide field of public health, but also in phases of work formerly held strictly within the province of medicine—we would, I think, have to conclude that nurses have on the whole been singularly successful in meeting the varied needs of society. If, on the other hand, we are to judge by the nature of certain criticisms of nurses and of schools of nursing which have been set forth with astonishing regularity and persistence in the public press for some years, the verdict would probably be that these schools and their product alike have failed in their task. Now criticism is often a necessary and wholesome thing and no one should be afraid of it. If given in a friendly and helpful spirit and with full understanding of the facts in the situation it may do much to improve matters.

A careful study, however, of such criticism shows that

most of it cannot be accepted as affording trustworthy evidence on the nursing situation and particularly concerning schools of nursing. Its tone has been frequently unfriendly to the point of hostility and the fact that the same articles have appeared simultaneously in various cities throughout the entire country provides more than a suggestion of something definite and purposeful at work directing it. In fact the report of the committee on nursing education states that "there have been persistent and vigorous efforts in certain quarters to break down the standards of nursing education which have been laboriously built up during the last twenty years."

What are these standards? Criticism here is so contradictory that it is difficult even to attempt to reconcile the widely conflicting statements. There are those who urge that nurses are "over-educated," dangerously so, and those who insist that their lack of proper education is a real menace to public welfare, and a great handicap to the nursing profession as a whole in its efforts to satisfy the legitimate and steadily developing public demand. Among the most valuable individual opinions of the present system of educating nurses are those from physicians of long familiarity with it and some of these have set forth their views explicitly.

Dr. Henry Hurd, formerly superintendent of the Johns Hopkins Hospital used to liken the situation of the student-nurse in the hospital to that of the missionary who was invited by some primitive tribe to attend a "feast," but on accepting found that he himself was expected to form the banquet. "Many Training Schools," says Dr. George Dock of Washington University, "are managed chiefly for the benefit of the hospital.—One of the finest things in one way, but one of the most questionable in another, is the way in which pupils have gone on, for months or years, repeating a routine no longer educative."

In an article on the *Relation of the Hospital to the Training School*, Dr. A. R. Warner said recently, "The slowness with which hospitals have developed the educational features of nurses' training schools has not been a help in placing nursing in the eyes of the public or of young women selecting a life's work, on a par with teaching or other work requiring even less preparation. . . ." "Hospitals must either maintain schools on the basis of educational institutions to provide professional training or schools of nursing will pass into other management and affiliate only with hospitals for the practical training." "Broadly speaking," says a report on the *Hospital Nursing Situation* issued by a committee of the Academy of Medicine, New York City, "training schools as at present organized are hardly schools at all in the usual meaning of the term. . . ." "The teaching is always secondary to the exigencies of hospital service."

Student Nurses and Hospital Service

We have to thank a noted hospital superintendent, Dr. S. S. Goldwater, for a candid and courageous facing of the situation.—"We must abandon the attempt to assign to pupil nurses exclusively or even chiefly the task of caring for the sick in general hospitals. It is attempting the impossible. It is obvious that the needs of the hospital must be met, for the sick cannot be neglected; but it by no means follows that pupil nurses must be sacrificed to that end." And he quotes from the recent report of a state inspector of schools of nursing that less than ten per cent of the small hospitals of that state were adhering to their teaching programs; while the remaining ninety per cent were taking unfair advantage

of their pupil nurses and surrendering their rights in the alleged interest of the sick. Of fresh interest was the point of view of a newly elected trustee of a hospital in an adjoining state who saw the problem with the eye of a business man. After examining carefully the work of the student nurses he declared them to be largely, "maids-of-all-work" for the hospital, of which, he said, if it were in the business instead of the philanthropic world would run serious risk of being put out of business for conducting its school under false pretenses.

Perhaps for clear light upon the basic situation in this problem a brief statement drawn from the news item in the current issue of *THE MODERN HOSPITAL* may be helpful. It reads as follows: *To Hire Nursing Service*—The Cook County Psychopathic Hospital has contracted with the Illinois Training School for Nurses of Cook County Hospital, Chicago, to supply its nursing service. This move is expected to save the taxpayers of Cook County about \$100,000 annually. Each patient is said to cost the psychopathic hospital \$1,070 a year under the present system. At the county hospital, where nurses are supplied by the training school, the cost is approximately \$210 a year per patient.

If this is correct, which may not be the case, it would appear to place the value of student nurses' service, usually covering about nine hours a day at fifty-seven cents per day.

Problem of Education Is Economic

Evidently the problem of the education of nurses is at root an economic one. And evidently also, as the opinions just quoted show there is legitimate ground for criticism of the present system, which is probably even more marked within the training school for nurses than outside it. A considerable degree of unrest and of dissatisfaction with the injustices of a system which imposed upon the schools heavy responsibilities, but provided no adequate powers of meeting them has been present in these schools ever since I have known anything about them.

The whole history of the education of nurses not only in America but in other countries shows the slow, painful and laborious efforts of the heads of these schools to find some equitable way of adjusting the constantly conflicting demands of hospital and training school. The needs of the hospital for nursing service have always stood squarely in the path of progress toward a satisfactory educational system, such as would draw better women into nursing and prepare them better for their work. Discouraged with the apparent hopelessness of the educational situation and anxious for the future of their schools the members of the Society of Training School Superintendents in the year 1911 made a formal appeal to the Carnegie Foundation to make a serious study of the education of nurses, similar to that which had previously been made of medical education. But the foundation was then pledged to other undertakings and the much needed study had to wait several years.

A later appeal, this time to the Rockefeller Foundation, resulted in the appointment of the committee on nursing and the provision of adequate resources for such a study. At the end of nearly three years of patient, careful, expert investigation the committee has issued its report. Every phase of nursing and of the education of nurses has been subjected to the most searching scrutiny, the findings exhaustively analyzed, and the facts and conclusions spread out before us. With these are recommendations from the Committee for certain reforms and improvements, which are doubtless by this

time familiar to most of those present. They have been heartily endorsed by all of the national associations of nurses, who will naturally support every effort to put them into effect.

What does this report say of the education of nurses? It says that it has been sacrificed to the care of the sick. It says that while other forms of professional education have long outgrown the apprentice stage, the training of nurses remains a survival of this largely outgrown type of education, and it calls attention to the fact that even such callings as journalism, business and social work are rapidly moving towards an ordered educational scheme. The school of nursing shares the weakness of the apprentice system. Its first liability is service and production, not education. It is the forced compliance with hospital needs which has been and continues to be the genuine obstacle to educational advance. To the fact that the school of nursing has sought to perform two functions, to educate nurses and to supply the nursing service of the hospital is attributed its failure wherever it has failed. And this, it says is the crux of the problem, the heart of the difficulty, for in these two functions there lies an ever present possibility of conflict. For nearly every deficiency in the education of nurses, this dual function which has been imposed by the hospital upon the training school must be held accountable.

How profoundly this conflict has affected the education of nurses, is shown in the 250 pages of the committee's report dealing with the hospital training school. The picture it presents is a familiar one to hospital workers. There are the low educational requirements kept so in order to secure a large supply of applicants, but providing no suitable foundation for the nurse's professional training; there are the long hours of duty, nine to ten hours by day and twelve by night, which defeat at the outset any rational educational scheme that could be devised; there are the schools in numbers without trained teachers and those in which the single teacher may handle even six to eight different subjects because the hospital does not provide funds for the payment of enough teachers. There is the pathetically meagre and insufficient body of theory, because the hospital cannot allow enough time for more, since this must be taken from that required for the care of the patients; there is also the almost universal lack of proper equipment in the way of class-room, laboratory and teaching material. Not so familiar, however, and very serious are the differences in the allotment of time for training in the various essential services. In medical service where the assigned period of training might be seven and one-half months, some students would have five and one-half months, and others twelve and one half months. In surgical service, where the training is usually longer than the student needs, simply because in many hospitals there is a preponderance of surgical patients, the allotted time may be eleven months, but students may be kept in that service from fourteen even up to eighteen months. The children's service may call for but two months of training, but in one hospital half of an entire class had only six weeks and one student had no training at all. In obstetrics with a requirement of three months, one student might have five months, and another only three weeks of training. Quite commonly, a student is kept on in a particular service after her required training in it is completed precisely because she has become efficient in that branch of work.

There are, of course, a good many schools (and they are increasing, though slowly, in number) in which these

conditions would not be found. But it is probably true to say that there are few if any in which some of them do not exist.

Such statements from a committee composed of leading hospital superintendents as well as physicians and nurses, and substantiated to the letter with ample and incontrovertible evidence presents a formidable indictment of our present system of educating nurses. The committee undertook its task, as it says, not in an effort to convict hospitals and training schools of error, but to discover the facts in the situation in the hope that this knowledge might lead to some remedy for a condition which is causing so much dissatisfaction and unrest. In such a showing the committee says lies the only hope of improvement, believing that the bar to progress lies precisely in ignorance of facts. No action it says, will follow until these facts sharply challenge the interest of those in authority: first, responsible hospital trustees, and behind them the general public on whose financial support either directly through gifts or indirectly through taxation the hospitals are dependent. As a member of that committee, I share this view to the full. In recalling the great gifts to hospitals of many generous hospital trustees, their pride in the work of their hospitals, and of the medical staff and often quite especially in the devoted work of the student nurses, one feels that hospital authorities would not consciously and deliberately lend themselves to an established policy of injustice, but that somehow, they are not as yet fully informed about the complicated nature of the educational problem in which they are most responsibly concerned.

The care of patients is of course an essential part of the education of the nurse, and a considerable amount of her time should be devoted to it but it should be of such kinds and types of patients and under such conditions and supervision as make it an appropriate part of a fruitful and well ordered educational scheme.

School Separate From Hospital

The education of nurses involves in addition to this as we have seen, a new and different set of conditions, persons, and resources which hospitals cannot supply. I have long believed that the root of our problem lies in the control of training schools by hospitals, and that this is not a sound system. Eventually, I believe, schools will be removed from such control and that hospitals will prefer to have it so, and that whatever we do until this time is a kind of patchwork—a bolstering up of a wrong system.

As one who lived and worked for many happy years in a good hospital, I speak with full understanding and sincere appreciation of the difficulties involved in making any marked change in hospital administration based as it is on the traditions and customs of centuries. But it seems to me of little use today to cling despairingly to the ideas and methods of the past. Is it possible that hospitals can find no way of carrying on their nursing services except through students? I do not for one moment believe it. We do not apply that principle to the training of any other body of workers. We do not insist that social work in hospitals can only be carried on by students. On the contrary in Bellevue Hospital, New York, last week, there were fifty-one social workers, all trained salaried women, and not one student among them. In the same hospital, there are five trained and salaried dietitians, and one pupil dietitian who has perhaps already completed her two years or more of professional training. Nurses are glad and proud that these two important bodies of hospital workers are free to prepare themselves for

their work in accordance with their knowledge of its needs, that they are not required to struggle with the system of apprenticeship abandoned long ago in virtually every field of education but nursing.

It seems evident that radical changes must be made in the present system of educating nurses if it is to be brought to a state where it can satisfactorily meet the needs and demands of the public. Under the conditions which have been described training schools cannot supply the community with nurses either in sufficient numbers, or of the qualities needed in many branches of nursing. If the education offered is meagre, if the hours of duty are unreasonably long, if much routine unskilled domestic service is included in the training, and if the life of students is narrow, restricted and sometimes harsh, there then will be only women entering our schools who will put up with such conditions. Because we cannot attract suitably qualified women in any appreciable numbers into our schools, we cannot send out even a fraction of the number of such women needed. Every single branch of nursing is calling for thousands more educated young women who will not under present conditions enter our hospital training schools. Much attention is directed to the need for more public health nurses. The 12,000 nurses already so engaged should be enlarged to at least 50,000 if the demands in this field are to be at all satisfactorily met. But rather more urgent than this, is, to my thinking the need for a very large number of women so educated as to be able to train adequately this army of young public health nurses. We have nearly 1,800 training schools for nurses and in them are at present about 55,000 young student nurses. They must be taught, supervised, directed and developed in all the ways in which they are capable of development for the work which awaits them. The hospital and the dispensary offer incomparably rich opportunities for such education and development, but these must be used by those who are capable of using them wisely. One leading school of nursing that I know, and it is by no means the largest, has a staff of seventy teachers, supervisors, and head nurses, and a well-educated, highly intelligent and capable nurse is needed for every one of these posts. Here is where our serious shortage lies. For this has a quite direct and obvious relation to the shortage in students, who today want to go where good teaching is provided.

The conclusions reached by the committee, provide the answer to the question, which forms the subject of this paper. They say that weighed in the balance the present system of educating nurses has been found wanting. They affirm that the care of the sick and the education of the nurse are two separate and distinct functions. In certain ways and up to a certain point these two functions can be advantageously combined, but the agreement as to those ways, as to when that point has been reached must be made by the two bodies, concerned and not by one alone as in the past. Each of these two bodies, the hospital and training school has its own clear, easily definable and in some ways widely different aims and purposes; each requires its own organization, resources, policy and personnel, to carry out these purposes. In no other way than through such an organization separate from that of the hospital can the education of the nurse be adequately safeguarded.

Of fundamental importance is it that the recommendation of the committee on this subject be carefully studied with a view to providing the best ways of putting them into effect. Among the several changes of policy advocated by the committee, two are basic and indispensable.

The first deals with finance. It says "adequate funds are one absolute necessity for the education of nurses.

Funds would enable the hospital to provide a permanent staff of workers of various grades—graduate nurses for some forms of work, attendants, ward helpers, etc., for other. This would ensure enough hospital assistance by day and night to shorten markedly the student nurses' hours of duty. She would then be free to use more of her time for the purpose for which she gives it. Funds would provide more and better teachers and supervisors. Funds would provide proper class rooms and laboratories and teaching equipment, books and reference material. Funds would provide proper housing and living conditions and suitable facilities for recreation.

The second concerns administration. "Special boards or committees organized somewhat independently of hospitals for the sole purpose of directing the education of nurses are necessary. The administrative board would be the responsible directors of the school, virtually acting as trustees, establishing and maintaining its policy, fostering its work, advancing its welfare, and safeguarding its interests from encroachments by hospital service.

With these two basic requirements met, most of the needed improvements could soon be brought into effect. Under these conditions which would provide means for proper instruction, and insure that students shall be free to get it, and with students who have had a sufficient educational ground work of education to build on, such as at least the completion of high school, the committee advises the reduction of the present three year course to two years and a brief preliminary term. In thus shortening while enriching the course the committee believes that several things can be accomplished at once: better training offered, a larger supply of students graduated more frequently to meet the public need, and a kind of course offered likely to prove more attractive to young women.

There are other recommendations, and the whole report is rich in information and in helpful suggestions. The section dealing with the training of attendants or nursing aids is of sufficient importance to call for separate consideration in order that ways may be found of providing the necessary training for this obviously needed body of workers. The last census shows that we have as many attendants, as trained nurses caring for the sick but little suitable provision is as yet available for their training. Their field of work in the care of minor ailments, and of certain chronic and convalescent patients, is a large and a useful one, and it should be defined, proper training provided and appropriate legislation enacted to safeguard both public and the workers. Such laws now exist in nine states.

As another resource in supplying care for the sick, mention is made of the effort to conserve the time and skill of nurses by what is called "group nursing." An experiment in this is now going on in the Mayo Clinics at Rochester and is well worth watching. Here the time of one nurse is distributed between two or more patients, and this is of course merely the carrying over into private service of the methods everywhere in use in free wards, and in a sense in visiting and hourly nursing. That this is economically sound and practically possible is being demonstrated daily.

Higher Requirements—Higher Standards

As a final word let me point out that every genuine and properly directed effort to improve the education of nurses appears to succeed out of all proportion to the degree of effort and expense involved, and to react back in ever better and more intelligent and more devoted care of the sick. It is the schools of nursing with fairly high requirements for admission where the best teaching

and supervision prevails, where the hours of duty are moderate, where the students are treated with courtesy and respect, yet where good work and good behavior are required of them and there is a general sense of fair dealing, who have least difficulty in filling their classes. The graduates of such schools are their perpetual advertisement. There is a fair number of these schools in the country but their growth is slow. Among them the university schools of nursing now about seventeen in number hold a leading place and naturally so, for they have usually some measure of self government, some organization more or less independent of hospitals or other institutions, some financial resources to apply directly to educational needs. They are signs that the old era is passing.

For symbols of the new we turn with rejoicing hearts and the highest hopes to the new schools of nursing connected

with two great universities. It is clear that the community is beginning to measure its responsibility for the education of future generations of nurses when within a fortnight \$500,000 is given by Mrs. Chester Bolton for the School of Nursing at Western Reserve University, Cleveland, and the Rockefeller Foundation provides for the establishment of a similar school at Yale University. Of this new School we read that "it is to be conducted in accordance with an educational plan and to accomplish this the school will be organized with a dean, governing board, faculty, laboratories, classrooms, and a budget of its own." These are the commonplaces of other forms of professional education. They open up a new era in the education of nurses, which promises much, not only in the care of the sick, but for those efforts to prevent sickness and to safeguard health which nurses are sharing in ever increasing measure.

SECOND SUMMER SESSION AT STANFORD UNIVERSITY COMPLETED

BY ALICE D. GOWER, R. N., SUPERINTENDENT OF NURSES, METHODIST HOSPITAL, LOS ANGELES, CAL.

THE summer course at Stanford University for instructors and administrators in schools of nursing, has completed its second year. It consisted of a five weeks' course from June 19 to July 25, inclusive. Although it is in its infancy, it has proved so valuable that this short course will without doubt be a stepping-

There are two outstanding values to such a course:— 1, it insures our interest as nurses in the public good and makes us realize more fully that we are a part of the whole educational program, not an isolated group; 2, it also arouses the public and other educational divisions more fully to the realization that nursing is an important



Group which attended summer session for instructors and administrators in School of Nursing at Stanford University, Los Angeles, Cal.

stone to something bigger in the near future. There were twenty-six students enrolled. The suggested course for the nurses included general psychology, instruction and administration in schools of nursing—though an elective was chosen from the school program if preferred to one of the suggested subjects. Many of the class signed up for swimming in addition to the studies. Credit for this work can be applied toward a college degree.

need of the community life, and that nursing education or the training of young women for the finest type of service to humanity is an important part of the whole educational plan.

Let us now consider the more specific details of the course. The psychology classes which were directed by the department faculty were most instructive. Miss Mary R. Walsh and Miss Sarah G. White, instructors in the

Stanford University School of Nursing at San Francisco, California, brought to the class the modern methods in instruction. Miss Walsh devoted her time to the teaching of nursing procedures, and Miss White emphasized the method of teaching the sciences. Among the interesting points stressed were preparation of lesson plans, the use of project method in teaching, and the necessity of adequate instruction in the basic sciences.

The course in administration in schools of nursing was under the supervision of Miss Carolyn E. Gray of Western Reserve University. It was an intensely interesting and valuable study. The text used was "Nursing and Nursing Education in the United States" founded on the report of the Committee for the Study of Nursing Education.

The course started with an analysis of the schools of the present day and their comparison with the ideal school as pictured by Florence Nightingale. In connection with this study the class made weekly excursions to various San Francisco hospitals.

It is interesting to note some of the subjects discussed, which included correlation of theory and practice, co-operative government, standard curriculum, records and budgets for schools of nursing. Scarcity of properly prepared nurses for administrative and instructive positions, the importance of teaching student nurses the standards of positive health, as well as the possibilities of organizing university schools, were considered.

The nurses lived at Roble Hall—the women's dormitory. The Hall is so well managed and so very comfortable that the home life is an attractive feature. It is situated on the beautiful campus just a short distance from the class rooms. Sunday afternoon, July 15th, the nurses were accorded the privilege of giving a tea, to which the faculty and other friends were invited.

Any account of the summer course at Stanford would be incomplete without some mention of the ideal climate which is particularly conducive to study. "The absence of rain, the prevalence of low humidity whenever the temperature is high, and the persistence of the ocean fog constitute the chief and peculiar characteristics of the summer climate at the University. Temperature ranges from forty degrees at night to eighty degrees in the daytime"—a range stimulating to mind and body.

The nursing profession is indebted to Dr. Ray L. Wilbur, president of Stanford University, Miss Clara S. Stoltenberg, associate professor of physiology, Miss Maude Landis, superintendent of nurses at Stanford University Hospital, Miss Anna C. Jamme, director, Bureau of Registration of Nurses, and Miss Mary B. Eyre, for the fact that this course was at first made possible. It was their co-operation and interest, as well as the instructors of the course, that this splendid start has been made. The students left with the desire not only to return and bring others with them but to do all in their power to introduce such courses in other universities of the United States.

PLAN CENTRAL SCHOOL OF NURSING IN WESTCHESTER COUNTY

Plans are being formed by the Association of Hospital Superintendents of Westchester County, New York, for the establishment of a central school of nursing to be opened soon. Five hospitals have already submitted their students for entry into the school in September, and it is expected that many more hospitals will enter pupils in the future. For the present, the Bloomingdale Hospital

has extended the use of its educational building for the headquarters of the school.

The central school of nursing is an outgrowth of the Association of Hospital Superintendents of Westchester County which was formed in October 1922 for the purpose of discussing topics of common interest and of promoting projects for the benefit of the nursing schools of the county. The association meets the third Thursday of each month.

Officers of the association are president, Miss Land of the Mount Vernon Hospital; vice-president, Mr. Crane of New Rochelle Hospital; secretary-treasurer, Miss Duffield, White Plains Hospital.

INSTITUTE FOR NURSES TO BE HELD BY ILLINOIS STATE LEAGUE

An institute for nurses will be held under the auspices of the Illinois State League of Nursing Education in Chicago, September 3 to 14. Nursing courses will be given to meet the demands of the four large groups of nurses, executives, instructors, public health nurses and private duty nurses.

Courses are arranged in two groups of ten lectures designated as course A and course B. Course A will consist of ten lectures in each of the following subjects, psychology, principles of teaching, and sociology. Course B will consist of a series of demonstrations and special lectures from which the nurse must select ten, if credit is desired for the entire course.

The institute is open to all graduates of accredited schools of nursing, and a certificate will be granted to all who complete satisfactorily ten lectures in psychology, principles of teaching and sociology in course A, and ten electives in course B. No examinations will be required.

The lecturers will be William E. Blatz, University of Chicago, in principles of teaching; Thomas D. Eliot, Presbyterian Hospital School of Nursing, sociology; and Harrison LeRoy Harley, in psychology.

CORRECTION OF ERROR IN JULY ISSUE

The opening paragraph of the article, "Missouri's Stand on Educational Requirement for Nurses," on page 74 of the July issue should have read: The October issue of a publication entitled "Caveat" published in St. Louis, Mo., which aims to present "impartially both sides of proposed measures and public questions" contains statements by Helen Wood, R.N., director, Washington University Training School for Nurses, and Ann G. Maguire, Undergraduate and Practical Nurses Association.

If it be my lot to crawl, I will crawl contentedly; if to fly, I will fly with alacrity; but as long as I can possibly avoid it I will never be unhappy. If, with a pleasant wife, three children, a good house and farm, many books, and many friends who wish me well, I cannot be happy, I am a very silly, foolish fellow, and what becomes of me is of very little consequence.—Sidney Smith.

Rightness expresses of actions, what straightness does of lines; and there can no more be two kinds of right action than there can be two kinds of straight line.—Herbert Spencer.

"A few hours will do for a baby, both in killing and curing it, what days will not do for a grown-up person."—Florence Nightingale.

NEW SCHOOL OF NURSING ESTABLISHED AT WESTERN RESERVE UNIVERSITY*

A NEW endowed school of nursing to be known as the School of Nursing of Western Reserve University was established as a part of Western Reserve University College for Women, Cleveland, Ohio, by a vote of the board of trustees of that institution, June 13, 1923. The new school is an out-growth of the department of nursing education in the college for women. It will be financed by a fund of \$500,000 from Mrs. Chester C. Bolton, Cleveland, who for many years was a member of the Cleveland Visiting Nurse Association, and a member of the Lakeside Hospital Board. She has done a great deal of work for the National Organization of Public Health, was connected with the National Defense during the war and was a lay member of the National League of Nursing Education on the finance committee. Thus the new school of nursing has the distinction of being the first endowed school of nursing in the country, as far as is known.

Miss Caroline E. Gray who since 1921 has been associate professor and who was recently elected professor in the department of nursing education of the University has been elected dean of the school. Miss Gray is a recognized leader in the nursing world widely known throughout the country because of her active interest in the field of nursing. She has had wide experience

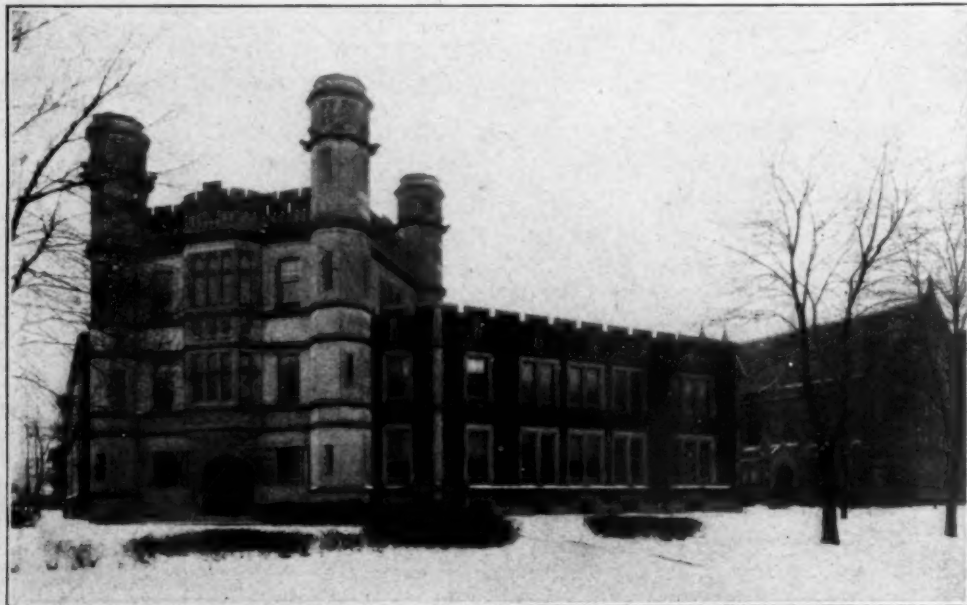
Nursing Education. Miss Gray will be assisted by Miss Nellie X. Hawkinson, A.M., who will be assistant professor of nursing education. Miss Hawkinson has also had wide experience as a hospital superintendent and an instructor in nursing at various hospitals.

Three types of work will be offered in the new school. A five year course for undergraduates leading to the degree of bachelor of science, similar to the course offered in the department of nursing education for the past two years will be offered. This will include two years at school, both technical and academic studies; two years in one of the hospitals affiliated with the university and a fifth year of special training along the line of the student's choice. At present three choices are open to the student: public health nursing, the teaching of nursing, and hospital administration. The entrance requirements for this course are the same as those for students entering the household administration course, namely: two units of foreign language, two units of mathematics, three units of English and eight optional units.

The second type of work includes the establishment of a preliminary course in the basic sciences in any of the hospitals connected with the university; Lakeside, Maternity, Babies' or City. The first three hospitals are con-



Miss Caroline E. Gray, dean of new School of Nursing, Western Reserve University.



College for Women, Western Reserve University, Cleveland, Ohio.

as a hospital superintendent, as an instructor and superintendent of nurses at several hospitals of New York and has served as a member of the Board of Nursing Examiners of New York, and as a member of the Committee of

*Account based upon data sent by Miss Helen M. Smith, Dean, College for Women, Western Reserve University.

tained in the hospital group plan of Western Reserve University. This course is for those entering directly from high school.

The third type of work planned for the school, but not as yet organized, is the work for graduate nurses. Miss Gray will begin the organization of that work this fall,

DIETETICS AND INSTITUTIONAL FOOD SERVICE

Conducted by LULU G. GRAVES,
Supervising Dietitian, Mt. Sinai Hospital, New York.

DIETETIC DEPARTMENT OF THE CLIFTON SPRINGS SANITARIUM

BY HELEN CLARKE, M.S., CHIEF DIETITIAN, CLIFTON SPRINGS SANITARIUM, CLIFTON SPRINGS, N. Y.

THE history of the diet work at the Clifton Springs Sanitarium dates back to the founding of the institution in 1850. There has always been a tray service because bed cages have been received from the beginning. In 1903 the first room was set aside for a diet kitchen and the work was established under the supervision of a graduate of Drexel Institute. Since then, the work has expanded until now there are three diet kitchens, and four college trained dietitians employed.

Diet Kitchen in Operation for Two Years

In 1918 a kitchen was opened adjacent to the rooms used for diabetic patients. In 1921 the main diet kitchen was built, and the old diet kitchen used only for a simple tray service. The kitchen in the annex started its work in March, 1923. This kitchen was the immediate outgrowth of two smaller serving rooms which were then discontinued.

The room patients who wish to choose from the dining room menu, and who do not need special supervision of their diet are served from the tray room. A list of standard diets is available so the nurses may choose the right type of foods for their patients, but this simple tray service is in no way connected with the work of the dietitian.

The main diet kitchen is located on the second floor, easily accessible by elevator and has a dumb waiter con-

necting it with the main kitchen. Adjoining is the office used by the two dietitians of that unit.

The diet kitchen has been in operation nearly two years. Until this spring all special weighed diets for both the main building, and the annex were served from here. Nephritics, cardiacs, obesity, gastro-intestinal, gout, constipation and cases of mal-nutrition make up the bulk of the diets.

In all of the dietary computations the dietitians work from the written order of the physician, and, as far as possible, the personal likes and dislikes of the individual are considered. The patient is visited, and the theory and the method of dieting is explained. Dietotherapy is considered of as great importance as any form of medical treatment given at the sanitarium and this fact is kept constantly before the patient.

Patients Instructed As to Food Habits

During the time that a patient is receiving a special diet he is carefully checked up in regard to his food habits. The patients who are to continue following a certain line of dieting, either while patients, or after leaving the sanitarium, are instructed in detail. The physicians are asking, more and more, that a dietitian instruct their patients and give them so-called "discharge diets." Positive, rather than negative, directions are given and the home life, economic condition, and intelligence of the pa-



Annex kitchen from which all trays are served.



An adequate dietetics laboratory showing class of probationers.

tient is considered. Sometimes it is rather a shock to a dietitian who has carefully explained the use of saccharin to a patient to find that her husband is a chemist. On the other hand, it is equally strange, after extolling the value of mineral salad dressing to a patient, to learn that he is a manufacturer of mayonnaise.

The staff of the main diet kitchen consists of a dietitian, who is called a full-time instructor of dietetics, two student nurses, a cook and tray boys. The dietitian plans and supervises the work of the nurses. Each nurse is in the diet kitchen for a period of six weeks, and in that time is detailed for the different phases of the work. Each nurse is advanced just as rapidly as she proves capable of assuming new responsibilities, so that the extent somewhat depends upon her initiative.

Most of the food used in the diet kitchen is prepared there. Breads, some soups, ice cream, and cold meats come from the main kitchen. All of the supply orders from the medical floors for broth, custards, junkets, jellies, gruels, acidophilized buttermilk and beef juice are filled by the diet kitchen. The requisitions come in daily and the food is distributed to the different floors.

The nurses weigh and serve the foods in the diet kitchen and are personally responsible for each tray which they send out. The tray is taken immediately to the patient in his room or is served to him in one of the dining rooms. The dining room tray service is discouraged by the dietitians and is given only upon the request of the physician.

The diabetic unit has a dietitian, cook, cook's helper and a tray boy. The student nurses who are assigned to the diabetic service have three weeks in the kitchen where

they learn the preparation of foods for diabetic diets and how to properly serve and make the trays attractive. Two weeks' time in the office gives the nurse an opportunity to learn how to compute the diets and to

study the relation of the diets to the clinical side of the work.

The use of insulin for the diabetic patients has opened up a new vista in the field of diet and has made the work doubly interesting the dietitians and the nurses. Besides being taught the use of insulin and its value by the physician, the patients also are taught to compute their diets and how to prepare their food. Classes and individual instruction make this possible.

All annex trays are served from the kitchen in that building. A daily menu is prepared by the dietitian in consultation with the chef. It seems rather necessary to parallel the foods used in the sanitarium, and foods suitable for all types of diets are provided. A nurses' helper takes the printed menus to the patients and writes out the order for the meals. The order slips

are then sent to the dietitian.

The patients on the surgical and obstetrical floor in the annex formerly were given type menus. In order to give a better service and greater choice it has recently been changed so that the head nurses are responsible for specific orders for their patients. This gives an opportunity for more individual service, less food is sent out, and the patients seem better satisfied.

The staff of the annex kitchen is made up of a dietitian, cook's helper, dishwasher, and tray boy. The cook prepares part of the food, cares for the food from the main kitchen which is brought over in a food conveyor and serves trays.

ORDER FOR DIET FROM

DIET KITCHEN

Name *Mrs. Cornell* Room No. *530*

Diet: P. *40* Grams. F. *100* Grams CH. *40* Grams.

(Kindly designate whether to be approximate or accurately weighed.) *Accurate*

Total Calories *1220*

Diagnosis. *Chronic arthritis*

Remarks

Date *June 20, 1923* Doctor. *Wright*

Written order from the physician for use in the diet kitchen.



The diet kitchen which has been in operation nearly two years.



Corner of the diabetic kitchen near room used for diabetic patients.

Just as in the other units, the trays are carried directly to the patient. An automatic electric dumbwaiter is being installed and this will facilitate more rapid distribution of the trays.

The relationship of the dietetic department to the nurses' dining room is unique. The request was made that a dietitian plan the meals and this has been done for the last nine months. The meals are planned in a daily conference with the chef. An attempt is made to furnish the type of dishes which will appeal to women. The estimated caloric values for the different foods are given and these are stated with the menus on a blackboard in the dining room. The student nurses show quite a little interest in food values and make the attempt to choose their meals wisely. About ninety nurses eat in this dining room so there is ample opportunity for interesting rivalry in the game of dieting.

Instruction for Student Nurses

In the instruction of student nurses the didactic work in dietetics is combined with the laboratory work and a course of forty hours in nutrition and cookery is given for the probationers. The work in the main diet kitchen usually precedes a ten-hour course in diet in disease. This course is almost concurrent with the practical work in the diabetic unit.

An adequately equipped dietetics laboratory provides a place for good practical work. Ten students can be cared for in one section, and the classes are divided in small groups for the laboratory work.

This year is the first time that student dietitians have been accepted at the sanitarium. A course of work covering twelve weeks has been planned, and three young women who have completed their junior year in a university are students. The work is arranged so that four weeks are spent in each unit. The different kitchens vary so greatly in the type of work which they do that a good opportunity is given to see three distinct phases of dietetic work.

The different departments co-operate in making the work for the student dietitians worth while. The superintendent outlined the policy of the sanitarium, and by means of a graph explained the relationship of the departments. Training school organization, ideals and aims were explained by the superintendent of nurses. The x-ray department allows the students to witness work dealing with gastro-intestinal cases. The laboratory will give a basal metabolism test using a student as the subject. The value of urinalysis and blood chemistry and their relationship to the treatment of disease is shown in connection with the diabetic work. The idea is to give the student dietitians a chance for a finer appreciation of the work related to dietetics but not to teach them to do these different kinds of work which they observe.

In addition to the routine work of the dietetic department it has been possible to cooperate with the work of the laboratory. Research in metabolism is being done under the direction of the bio-chemist and it has been sided by the workers in the department. In one case a student nurse on duty in the diet kitchen acted as the subject for a series of experiments. Among the published articles related to this work are those listed as follows:

Roger S. Hubbard and D. C. Wilson. An experiment in the Absorption of Glucose given by Rectum. *Abst. Assn. Expt. Biol. and Med.* 18:307, 1921.

Roger S. Hubbard and F. R. Wright. Studies on the Acetonuria Produced by Diets Containing Large Amounts of Fat. *Jour. Biol. Chem.* 50:361, 1922.

Roger S. Hubbard. Calculating Diets Containing a Minimum of Carbohydrates—for the Treatment of Arthritis. *J. A. M. A.* 78:723, 1922.

Roger S. Hubbard and S. T. Nicholson, Jr. The Acetonuria of Diabetes. *Jour. Biol. Chem.* 53:209, 1922.

Roger S. Hubbard. Ingested Fat and Body Fat as Precursors of the Acetone Bodies. *Jour. Biol. Chem.* 55:357, 1923.

FORMULATE PROGRAM FOR AMERICAN DIETETIC ASSOCIATION MEETING

The American Dietetic Association is forming plans for its annual meeting to be held in Indianapolis on October 15, 16 and 17. The program outlined gives a sketch of the nature of the fields to be covered.

Monday, October 15

10 a. m.

Opening—Mrs. Octavia Hall Smillie, president Section on Administration: speakers—Miss Effie Raitt, University of Washington, section chairman, "Survey of Present Status of Dietitians' Work"; Miss Ruth Lusby, University of Washington, "Opportunities for the Administrative Dietitian."

2 p. m.

Section on Dieto-Therapy: speakers—Dr. Russell Wilder, Mayo Clinic, "How May the Dietitian Best Co-operate with the Physician?"; Dr. H. A. G. Clowes, Eli Lilly Company, "Insulin Treatment and Its Relation to Dietetic Management of Diabetes Mellitus"; Miss Amalia Lantz, dietitian, Peter Bent Brigham Hospital, section chairman, "The Standardization of Technical Methods Used in Dieto-Therapy."

7 p. m.

Banquet—Speakers to be announced.

Tuesday, October 16

10 a. m.

Section on education: Round Table Discussion, Dr. Ruth Wheeler, University of Iowa, leader and section chairman, "The Education of the Dietitian, Theoretical and Practical."

2 p. m.

Sight-seeing trips (including visit to Eli Lilly Co., manufacturers of insulin).

8 p. m.

Speakers—Dr. Louis H. Burlingham, Barnes Hospital, "What Does a Hospital Superintendent Expect of a Dietitian?"; Dr. Amy Daniels, University of Iowa, "How Can the Home Economics College Improve the Preparatory Training of the Hospital Dietitian?"

Wednesday, October 17

10 a. m.

Section on Social Service: speakers—Mrs. Gertrude Gates Mudge, section chairman, "Survey of Polish Dietitaries"; Miss Helen Parsons, University of Wisconsin, "Special Class Problem"; A Home Economist, Cleveland Associated Charities, "The Place of Home Economics in Family Case Work."

2 p. m.

Miss Abbie Marlatt, University of Wisconsin, "Institutional Management Abroad. Business meeting. Tea.

8 p. m.

Miss Lydia Roberts, University of Chicago "Recent Developments in Dietetics."

The local association has arranged trips to Eli Lilly Laboratory where great progress has been made in perfecting "Insulin." A trip has also been planned to the Polk Sanitary Milk Company. As there are but three such milk companies in the United States the observation of this scientific treatment of milk will be of interest.

Trips to the various hospitals have been arranged along with many sight-seeing trips. These trips will be taken by auto and under the auspices of the chairman, Miss Trout of the Long Hospital, Indianapolis, Ind.

Headquarters will be at the Claypool Hotel which is situated on the corner of Illinois and Washington Streets, the center of both the business and shopping districts, and within one to four squares of all other hotels. This hotel has four hundred rooms with baths, the rates are reasonable. The exhibits meetings, banquet and tea will be held there. For all information, inquire at the information booth, which with the registration booth, will be in the main lobby. Miss Mary Davis, chief dietitian, City Hospital, Indianapolis, chairman, and Miss Rust of the Russett Cafeteria, Indianapolis, will be in charge.

The exhibits will be found in the Riley Room, on the mezzanine floor. In this exhibit room will be found displays of equipment, food, household supplies. They will be especially good this year as all exhibitors are planning to make their booths more attractive with the latest of scientific equipment. The non-commercial exhibit will consist of charts, health posters, home economic bulletins and all magazines used in the business management of dietary departments.

A reduction of one and one-half fare on the certificate plan will be given all members attending the meeting. This certificate is issued to each member en route to Indianapolis from her home station. It is important to ask for this certificate, as 250 are needed to procure the plan of one and one-half fare. These certificates must be signed by the national president within the three days' stay of the convention. These certificates are issued over the Central Passengers Association tickets, the Western Passenger, Southwestern Passenger Association and the Canadian Passenger Association. (Trunk Line Association, New England Passenger Association, and Transcontinental Passenger Association.)

The other hotels affording good accommodation are the Lincoln, across the street from the Claypool, The Severn Hotel, two blocks south; The Washington Hotel, one block East, The English Hotel on the Circle and the Spink Arms Hotel, four blocks north, on Meridian Street. These all offer rooms with bath at a very reasonable rate.

The Banquet will be held Monday, October 15, at the Claypool Hotel. All those registering Monday morning, should secure their ticket for the banquet. It is urged that all tickets be in by 1 p. m. Monday, October 15.

A tea will be given on Wednesday afternoon, after the business meeting. Mrs. McCray, wife of the governor, Mrs. Ralston, wife of the ex-governor, Mrs. Thomas Marshall, the ex-vice president's wife, and Mrs. Demetrius Tillotson, wife of the superintendent of the Methodist Episcopal Hospital, will be asked to serve as hostesses. This will be a very attractive feature of the afternoon program. Mrs. Margaret Marlowe, chief dietitian, Methodist Hospital will be chairman.

Attention is directed to the new home economics building at Purdue University, under the direction of Mrs. Mathews, head of the home economics department of the university. This will be a very attractive trip as Purdue offers one of the best scientific home economics courses.

OUTLINE OF THE FOOD PROBLEM BY ONE CHARITY ORGANIZATION

An account of the way in which the Associated Charities of Cleveland emphasize the relation between food and health, written by Miss Adelaide Van Duzer, appears in a current issue of the *American Food Journal* under

the department of food and health conducted by Miss Winifred Gibbs. Though the plan may not present any striking new points, it is of interest to dietitians as a sensible summing up of what may be accomplished, the main points being given in terse statements. The material will be presented under two main heads: 1. Points to be made with children. 2. Material to be used as general background by teacher.

What Children Should Get from Work

The members of the group should have, at close of course, a clear idea of the following:

1. What good food habits are.
2. How to form these habits.
3. How to learn to like foods.
4. What happens as a result of good food habits.
5. What happens as result of bad food habits.
6. How to know when dietary is suited to individual needs. Why?

What Teacher Should Keep in Mind

The teacher of the nutrition group should keep in mind:

1. Subject matter to be given children.
2. General reading for herself.
3. Methods of getting message to children.
4. Tests of results achieved.

Good Food Habits

A child who has formed good food habits eats:

The proper foods for his or her age,
In correct amounts, at each meal and during the day,
At proper hours, under right conditions.

Proper Foods for Children

Fruit juice or whole fruit, according to age.
Cereals, well cooked, with very little sugar and plenty of milk.
Whole meal bread, well baked or toasted.
One egg, coddled or soft cooked or poached.
One green vegetable.
Baked or mashed potato.
Small serving of meat.

"Happiness, satisfaction and progress—all demand a new view of the home as a permanent human institution if the highest welfare of the individual, the family, and the nation is to be secured with its help. Neither men nor women should be content to cling to outworn industrial educational and social customs as a basis for the home. They should rather seek to find expression, under changed and ever changing conditions, for those functions of the home which will outlast any industrial, educational or social system."—Marion Talbot in *The Education of Women*.

There are big tasks lying before women—tasks that call for such wisdom as we get by combined study; tasks that need the altruism we get in working together; tasks that need the energy we get from combination of effort. We want homes where the big things are made big and the little things unimportant. We want communities that are extensions of the home, where we shall be friends, we people of all races and creeds. We must have the vision stand together nation-wide.—Alice Ames Winter.

There is at least one thing that all college women have in common; a sincere desire for service, and an understanding and respect for the fields of learning which they have glimpsed.

HOSPITAL EQUIPMENT AND OPERATION

With Special Reference to Laundry, Kitchen and Housekeeping Problems

Conducted by FRANK E. CHAPMAN, Director
Mt. Sinai Hospital, Cleveland, Ohio

SIZING SAVES LABOR AND FABRICS

BY WALTER T. WILLIAMS, CINCINNATI, OHIO.

SEVERAL hospitals that I have recently visited have discarded the old-fashioned cooked-starch process and now employ a sizing which is ready to use and which is applied in the washing machine. This sizing is similar to that put into new goods by the manufacturers of fabrics, and while it takes the place of starch it is not a starch in the strict sense of the word, as it is understood in the laundry industry. Hospital laundry managers who have used this sizing state that it has many good qualities that starch does not possess, with freedom from its common disadvantages.

This material closely resembles the sizing which is used as a finish by weavers of cotton fabrics, it being modified to a small extent in order to make it altogether suitable for power laundry use. It comes in very fine crystals, resembling a powder, and it dissolves quickly in tepid water, such as is ordinarily used in what is called the cold rinse. The sizing is applied in the following rapid and simple manner:

The dry sizing is put into the final rinse or blue water, just as one would put dry washing soda or powdered soap into the washing machine in one of the baths, and the stiffness of the goods is regulated by the amount of sizing used and by the time the washer is run. For instance, with average work and with an ordinary amount of water, three pounds of sizing is used with 100 pounds of goods, and the machine is run from five to ten minutes. It has been found that the longer the machine is run the more starch is transferred from the water to the pores of the goods, this being because

the particles have a greater affinity for the fiber than they have for water.

After the sizing has been applied the valve is opened and the remaining solution is discharged, very little sizing remaining in it, as the material has gone into the goods. Then the load is transferred to the ordinary extractor, no special starch extractor being necessary. It will be seen

that this process, which requires neither a starching machine nor a starch extractor, offers a great advantage to the laundry of a small hospital, as it eliminates these two machines and besides this does away with the starch cooker and its attendant troubles and uncertainties.

After the goods have been extracted, the pieces go directly to the ironers, without any intervening drying process and subsequent re-dampening. Here is a further advantage, resting in the fact that the dryroom may be eliminated. Articles thus sized may be ironed directly from the extractor in the ordinary manner, either by machine or by hand. When pieces are put through the flat work ironer they do not stick to the rolls as is the case where ordinary starch is used, and therefore this practice is recommended where the machines are of the "floating roll" or similar type.

After the goods have been sized, the sizing does not leave any indication on the surface of the damp material and show its presence as does ordinary starch, and for this reason it is in some laundries referred to as "invisible stiffness." After the pieces have been ironed they take on what is known in the laundry trade as a "satin fin-



The above picture shows the manner of putting the sizing into the washing machine, where it is used in the last rinse or blue water. The small amount that is used is indicated by the small size of the scoop which the man is using. This photograph was taken in the laundry of the Good Samaritan Hospital, Cincinnati, Ohio.

ish," this term being perhaps due to the desire to designate the product as something different from ordinary starched work and superior to it. As it is really a mill sizing, the finished goods takes on the appearance of new.

When this "invisible stiffness" is used to give the laundered articles a "satin finish" after the ironing process, instead of following the old-fashioned cooked-starch process, a great amount of time is saved. In one case it was found that the time saved in laundering 100 ordinary shirts was one hour and fifteen minutes. Several operations were eliminated, among which were, (1) cooking and preparing of starch, (2) separate starching of neckbands and cuffs, (3) extracting after the starching. Where ordinary starch is used and where the work is to be ironed directly from the extractor, with no intermediate drying, the usual process is: (1) cook and prepare the starch, (2) apply in the washer, (3) extract the goods. When this sizing is used the cooking and preparing of starch is eliminated and the time of extraction is reduced almost one-half.

With the cooked-starch method many difficulties are encountered in the ironing, a common one being the appearance of glossy spots, caused by uneven distribution of the starch. These spots are called "high lights" in the laundry trade, and as they are very unsightly they must be removed. As this involves the sponging of the spots and the removal of the surplus starch, with subsequent retouching by hand, considerable time is wasted in the operation. Where this sizing is used there is no appearance of high lights and there is no loss of time from having to remove them. Neither is there any sticking of the goods to the iron or press, caused by surplus starch.

This sizing acts in a manner that is almost unbelievable. Under the old process there must be "thick" starch applied where considerable stiffness is desired and "thin" starch where not so much stiffness is wanted, which not only involves two kinds of starch but which also calls for a great deal of hand or machine manipulation of many articles. Treat the same article with the sizing and after it is ironed it will be found that the parts which should be stiff will be that way, while the parts which should be limp and show very little stiffness will be just right.

This "self-adjusting" property of the sizing is truly remarkable, but nevertheless it is not difficult to explain. As stated, the sizing has a greater affinity for the goods than it has for water. Hence, where the goods is thickest and where there are the most plys of goods, as in hems, neckbands, cuffs and other places, the most sizing is taken into the pores, and where the goods is thinnest the least sizing is taken into the pores. Thus it naturally follows that in the same bath some parts will be made stiffer than others, depending on the amount of material present, and the correct places will be stiff, while the proper places will be soft and yielding.

The theory that this sizing will prolong the life of goods seems to be well founded. It penetrates the goods thoroughly, and does not simply rest on the surface as a coating, as thick cooked-starch is apt to do. Therefore, when a sized piece is bent there is not the same "breaking" effect on the goods as is the case when a piece is starched in the ordinary manner. It has not the brittle, glassy finish of old-style starched work, but its texture is satin-like and yielding.

Undoubtedly the sizing strengthens the goods, through holding the fibers in the threads and also the threads themselves together. It is conceivable that it would be good practice to treat all flat work with this sizing, including sheets and pillowslips, as the holding of the fibers and the threads in firm contact should prevent wear from

friction, internal and external, and thus prolong the life of the goods. If a fabric is thoroughly impregnated with the sizing, soils and stains penetrate to a reduced degree and in the washing most of the soiling material comes out freely with the finishing material.

The day of heavy starching is passing and there is an almost universal demand for comfortable, soft, lightweight garments. A sizing of this type penetrates the weave of the fabric and thus puts the stiffness where it belongs, on the inside, not merely on the surface. It gives the appearance of newness, but still one does not consciously notice it and, for this reason, some call the material "that invisible stiffness." There is no harsh, brittle starch feel, but still there is a flexible finish which is pleasing to the eye and which prolongs the life of the garment.

This leads to the subject of purity of the stiffening material used in the laundry. Starches may be adulterated with certain mineral substances, such as talc, magnesia, chalk or white clay. Such adulterants will shorten the life of the goods, and therefore one should be careful to avoid the purchase of adulterated starches. While all of these minerals are in finely powdered form, each of them is an abrasive, with many sharp edges. When a piece of goods is impregnated with these microscopic sharp-edged tools it will literally "grind itself to pieces" when it is in use. Many a seller and maker of fabrics have been blamed for the short life of goods which has been ground up in this manner, some of the abrasive coming from the starch and some of it coming from hard water.

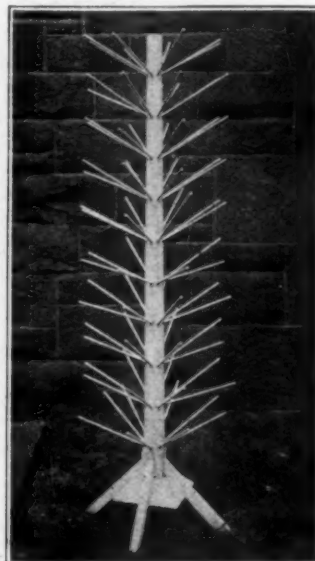
Another advantage which comes from the use of this sizing rests in the fact that it does not stick to the padding of ironing machines as does ordinary starch. This not only gives greater facility in the ironing but it also reduces the outlay for machine coverings and the time consumed in putting them on.

A HOME-MADE GLOVE TREE

By L. A. SEXTON, M.D., SUPERINTENDENT, HARTFORD HOSPITAL, HARTFORD, CONN.

The accompanying illustration renders unnecessary any detailed description of this tree in use at The Hartford Hospital. It stands six feet high and has ten clusters

of limbs with an intervening stem six inches long between each of the clusters. The limbs are eleven inches long and are made of three eight inch hickory pins.



After being used, the gloves are washed in cold soapy water, rinsed in clear cold water and then boiled for five minutes. They are then hung on the glove tree and an electric fan turned on them. At the end of ten minutes they are dry on the outside; they are then turned, replaced on the tree and dried again. After this they are repaired, if necessary, assorted,

matched, powdered with steril talcum containing ten per cent of boracic acid, put up one pair in each package, re-sterilized with twelve pounds pressure at two hundred and forty-four degrees F. for fifteen minutes.



"They All Love Its Taste"

Protect Young Teeth From Grit

Modern Dental science has shown that proper care of children's teeth builds eager active minds and sturdy bodies.*

Here are precautions thoughtful mothers should take:

First, choose a safe dentifrice—one that contains no grit, for grit scratches tooth enamel.

Second, avoid preparations containing harsh chemicals and strong drugs.

Third, teach regular brushing of the teeth after meals and at bedtime.

Colgate's contains no grit or harmful ingredients. It is a safe double action dentifrice; (1)—its specially prepared chalk loosens clinging particles; (2)—its mild vegetable-oil soap gently washes them away.

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CANNOT ROLL OFF THE BRUSH

CLEANS TEETH THE RIGHT WAY
Washes—Rinses—Doesn't Scratch or Scour

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Truth in Advertising Implies Honesty in Manufacture

*Five year tests at Bridgeport, Conn., show 50% reduction of backwardness among school children.

A Colgate Page Advertisement in Leading Magazines

The Colgate Doctrine

"—Colgate & Co. has always maintained that the proper province for a dentifrice for general use is to cleanse and not to medicate. The general public is not in need of medication. Special cases that require medication should be prescribed for by the Dentist or the Physician."

From an address by Dr. Martin Hill Ittner, Chief Chemist, Colgate & Co before Portland (Ore.) District Dental Society

A generous supply of samples will be sent postpaid to professional friends upon request. Welfare department, Colgate & Co., 199 Fulton Street, New York

HOSPITAL PAINTING

BY G. B. HECKEL, PHILADELPHIA, PA.

THE problem of painting the exterior of a hospital differs little from that presented by any structure of similar size and materials. The desiderata as to color scheme are, of course, cheerfulness and "invitingness," if I may be permitted to coin a word. Hospitals should naturally be constructed mainly of materials other than wood, but such wood as may be used should be treated exactly as the same kind of wood in other structures.

Architectural design, of course, comes first, but, even a radical mistake in design can be more or less satisfactorily corrected by paint. The color scheme selected should be cheerful, homelike and, above all, in good taste.

The materials to be painted are usually wood, tin plate, galvanized iron and concrete or stucco. It pays to paint the latter, in order to prevent air-cracking and to repel moisture.

There is wide and rabid difference of opinion as to preference in painting materials. Most painters prefer to mix their own combinations from paste pigments, which practice enables them to vary the paint according to conditions. Others, however, prefer a high-grade prepared or ready-mixed paint, which comes practically ready for application.

Tin Roofs and Gutters—Galvanized Iron

Preferable materials are copper or sheet zinc. Neither requires painting and both are practically everlasting if properly installed; but, sheet zinc costs less than sheet copper and is quite as durable.

Tin plate is sheet steel coated thinly with an alloy of tin and lead. Galvanized iron is steel coated with zinc. Both require protection, because of the steel, which rusts as soon as moisture reaches it, and moisture eventually reaches it through these coatings. A tin roof should be painted at once. The new sheets are covered with an invisible film of oil from the manufacturing process. This should be removed by washing with benzine, at the same time scraping all rosin from the soldered seams.

Paint on a warm, dry day, and give two coats of paint, the second about a week after the first. Repaint, one coat, every two years. Allow galvanized iron to stand unpainted for about six months. Then proceed as with tin roofs. If immediate painting is required, treat the surface first with a solution of six ounces of copper acetate per gallon of water. This will roughen the surface and enable the paint to adhere.

Allow concrete and stucco surfaces to stand for one year; then, in dry weather, give four coats of paint, at intervals of five days or more. If earlier painting is required, treat the surface, before painting, with a solution of eight ounces of zinc sulphate to the gallon of water. This converts the uncombined "lime" in the surface to calcium sulphate (gypsum) and precipitates zinc hydroxide therein.

Woodwork

Because of fire hazard, the only wood legally permissible on the exterior of a hospital in any location should be the porches, the cornice, the door and window frames, the sashes and the doors. The proper painting of wood depends on the nature of the wood, of which the variety is so great that the subject cannot be considered in detail

here. A few general considerations, however, may be set down.

The success of a painting job depends as much, if not more, on procedure than on material. All good paints are good enough, if properly handled. The condition of the surface and atmospheric conditions at the time of painting have also a great deal to do with the success and durability of the job. Moisture is the chief enemy of oil paint; therefore, both the material to be painted and the atmosphere at the time of painting should be dry; otherwise, an unsatisfactory job is likely to result.

Not fewer than three coats of paint should ever be applied to an unpainted wood surface. Two coats will usually suffice if the surface has already been painted; but, to get satisfactory results over old paint, all loose or scaling material must first be removed. Sufficient time (three days at least) should be allowed for drying between coats.

Porch ceilings and entrance doors may well be finished in the natural wood, coated with good exterior varnish. Porch floors must not only be weather resistant, but must also resist abrasion. Special products are offered for this use, and are generally satisfactory. The addition of a small percentage of good floor varnish to any high-grade exterior paint will, however, add the necessary elasticity and resistance.

For the interior finish of a hospital nothing but tiling, paint or varnish is permissible. Paint itself is a disinfectant. This disinfectant power, however, rapidly disappears with the drying of the film, and ordinary methods of disinfection and cleansing must be relied on thereafter. It follows that every surface in a hospital should be adapted to cleaning.

In so far as its general efficiency is concerned, color has no influence; therefore, selection in regard to this item is unlimited.

The medical mind inclines to white as the proper color for every medical adjunct, from rubber bandages to the hair of the head, but there is no advantage in white beyond its light-reflecting co-efficient and its revealing character as a background for dirt. The slight diminution of luminosity effected by moderate tinting is more than compensated by the favorable psychological influence of color. The same taste which prescribes the tint in the halls and bedrooms of our homes should govern in the corresponding selection for a hospital. Warmth, cheerfulness, light and restfulness are the governing considerations. I think, also, that monotony and repetition should be avoided. Putting ourselves mentally in the patient's place will, with the average person of good taste, solve this problem satisfactorily.

Corridors

The corridors in a hospital should be painted in some light, refreshing, and restful tint of blue, green, or warm gray, with ceiling just "off the white," as painters put it, inclining to cream color. There may be a harmonizing dado and a simple shadowy border or not, according to pleasure.

The same suggestions will hold good for the wards, though here, perhaps, light tints of green are to be preferred for the walls. Geometric patterns or intricate designs in the border should naturally be avoided, if a

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LYSINE

so vital to the bodily development of growing children.

For mal-nourished, scrofulous and anemic children, fruit and vegetable dishes are much more efficacious when prepared with Knox Sparkling Gelatine, which nature has endowed with 5.9% Lysine.

A trial order of Knox Sparkling Gelatine packed in either one or five pound cartons, will be sent to any hospital on request, at 80c the pound.

Charles B. Knox Gelatine Co.

400 Knox Ave., Johnstown, N. Y.



"Always the Highest Quality"

border be used at all. Similar considerations will apply to the painting of private rooms, though here, it seems to me, the air of home might well be emphasized. The people who utilize these rooms are generally of a class who are used to the comforts of home and very much unused to institutional austerity.

I think, also, that a variety of choice should be offered. It costs no more and takes no more time or material to make all the rooms different than to make them all (institutionally) alike.

Materials and Methods

We now come to the practical question of materials and methods, which, to my mind, is secondary in importance to the considerations already discussed. The proper white pigments for interior hospital paintings are zinc oxide, lithopone (a compound of zinc sulphide and barium sulphate) and the newly introduced titanium oxide pigment. All of these are white, permanent and innocuous.

For the surfaces now under discussion, the so-called "matte" or "flat" finishes would appear to be preferable. Such finishes are produced by using for the vehicle (liquid binder) a type of oil varnish which dries without lustre, or by reducing the percentage of oil to pigment and increasing the proportion of volatile thinner in the paint. Stippling also tends towards the flat effect.

The flat wall finishes introduced within the last fifteen or twenty years embody this principle. They consist mainly of lithopone and zinc oxide in a China wood oil varnish, and produce very soft and practically lustreless effects. They are washable *ad libitum* with the neutral soaps specially devised for the purpose. They also serve very well as foundation coats for enamel.

Other oil paints can be used satisfactorily for corresponding effects by using an excess of volatile thinners and stippling the final coat. Some painters advocate the application of a very thin sizing coat of starch over these finishes. Washing easily removes this coat with the adherent dirt, and a fresh size reproduces the original surface.

Repainting Important

Periodical repainting is important everywhere, for we know that by saving the surface we save all; but in connection with a hospital it assumes especial importance as a sanitary measure. Every painted surface in the interior of a hospital should be repainted at recurrent intervals, and there is no reason why all the repainting should be done at one time. A single room or ward might well be treated whenever occasion offers, and the entire institution thus kept fresh, sanitary and surgically clean. But obviously this work should be done only during the season when the room under treatment can be kept wide open to the air, and careful provision should be made to keep the odor of the paint out of the rest of the building.

For operating rooms no more scientifically correct scheme has yet been suggested than that adopted by Dr. H. J. Sherman, of the San Francisco Polyclinic, whose original article appeared in the *California State Journal of Medicine*, and has been quoted rather extensively in the March, 1922 issue of this periodical. Briefly, the color recommended for operating rooms is spinach green—a color complementary to that of haemoglobin.

Of interest also is the practice of Drs. Chas. H. Frazier and John G. Clark of the University of Pennsylvania Hospital, who use gray hangings, towelings and operating gowns in their work. "Both operators find this color quieter, decidedly less glaring and less spectacular than

white, especially for the towelings which, when white, make 'a theatrical display of blood.'"

Iron and steel work is painted to prevent rust. There are two general principles of procedure by which this may be accomplished. Both oxygen and moisture are necessary to the process of rusting, therefore, if either air or moisture be absolutely excluded, iron cannot rust. Both will penetrate an ordinary oil paint film and even an impervious film may sooner or later crack; so that this method, though common, leaves something to be desired.

The second method depends on the fact that certain chemical substances seem to have the power of annulling the hunger of iron for oxygen, rendering it passive and inhibiting corrosion. Chromic acid is one of the most powerful of these so-called inhibitors; red lead, zinc oxide, sublimed blue lead and other basic pigments share the same power to a considerable extent. Chromic acid, by the way, is a component of several familiar pigments—basic lead chromate, chrome yellow, zinc chrome, for example, which exhibit this property to a high degree.

Obviously, since it is only by actual contact that pigments can act, we have only the first or primary coat to consider. While the principle is not admitted by all technologists, much experience has proved that the best priming coat for a steel surface is basic lead chromate (scarlet chrome) and that priming coats containing zinc chrome are highly efficient. Red lead, also, has very many advocates and long experience has demonstrated its efficiency, while many manufacturers use zinc oxide in the pigment combination for the same purpose.

The priming coat used by the New Jersey Zinc Company for steel or iron is as follows:

"The pigments for the priming paint shall consist of eighty-five per cent iron oxide and fifteen per cent pure zinc oxide. This paint may be purchased either in paste or ready-mixed form with the zinc oxide incorporated in the process of manufacture. The iron oxide used shall contain no free sulphur, water soluble sulphates, acids or alkali, and shall contain not less than eighty per cent of pure unhydrated ferric oxide, without addition of any compounds of calcium, barium, aluminum or magnesium.

"The oil contained shall be pure, raw linseed oil in accordance with the specifications of the American Society for Testing Materials and the vehicle shall have an acid number not exceeding four. The only constituents allowable besides those named shall be turpentine or benzine and liquid dryer, which shall be free from resin or gum resins and resin compounds. In other words, the dryer shall be pure oil dryer, reduced, if desired, with turpentine or benzine or both."

This formula has the advantage of being cheaper than any of the rest, and has proved very efficient.

With a proper priming coat next to the steel any good oil paint of any desired color will be found satisfactory for the subsequent two coats.

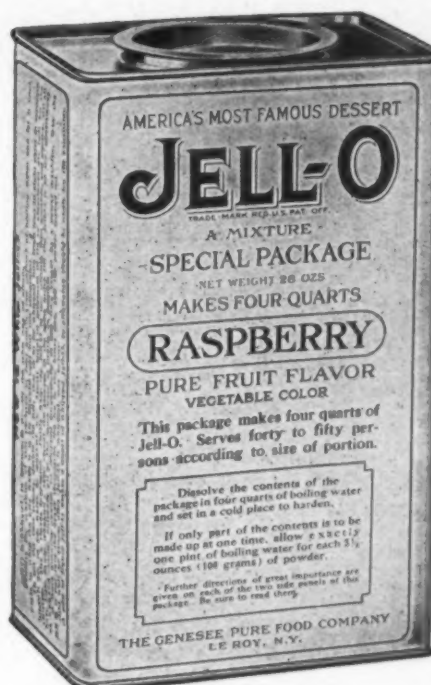
Just here I think a word about iron fire-escapes may be in place. They rust like any other steel structure and should be carefully and conscientiously guarded so that they may not fail in an emergency.

Hardwood Floors

A floor in a hospital is walked on by many feet. It is also the depository of such dust as finds its way into the guarded precincts. Therefore floors in a hospital should be resistant to abrasion and cleansable without injury.

The standard coating for a hardwood floor is floor varnish, the best obtainable. Not fewer than three coats should be applied at the beginning; preceded, if it be of

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makes one gallon.*

AND it is so acknowledged, particularly since there has come to be such a general understanding of the value of a sane diet in the preservation of health.

Jell-O is a sweet but not an added burden to digestion. It exactly fills the need of the adults who have come to the point of taking a little better care of themselves, or of the family that does not care to serve food in which children cannot join the grown-ups.

The Genesee Pure Food Company

Two Factories

LeRoy N. Y.

Bridgeburg, Ont.

an "open grain" wood (oak, chestnut, ash), by a wood filler, properly applied. If the wood be very light in color (white maple, for example) and retention of this color be considered important, a very thin coat of white shellac may be applied before varnishing. The proper consistency is obtained by diluting ordinary white shellac varnish with an equal volume of "special denatured" alcohol. Shellac itself, as a floor coating, while convenient and pleasing in appearance, is too brittle and too easily defaced by wear or by water, to provide a satisfactory floor finish. Used, however, as suggested, it prevents the oil-varnish from soaking into and darkening the wood.

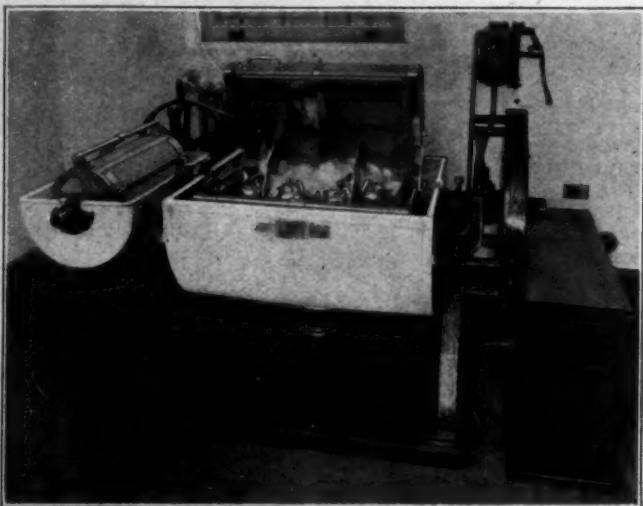
However, there have recently been introduced for this purpose certain penetrating compounds, consisting essentially of drying oils and volatile solvents, containing stains in solution. These penetrate the wood to a considerable depth, produce a dull surface and do not wear off like a varnish coating. They are very highly regarded by some hospital authorities. As soon as the varnish on a floor shows signs of wear, one fresh coat should be applied. It is impossible, in an article of moderate length, to consider this subject in detail, but I trust that the series of hints here given may prove useful by way of suggestion.

BURNISHING HOSPITAL SILVER

Even in a small hospital the polishing of silver by hand in the old way is a slow and laborious process. Besides that, when silver is polished by hand, the cleaning material used is an abrasive, and regardless of the fact that it is very fine, the use of the abrasive gradually removes the plating from the various articles.

If a silver burnishing machine is used there is a very small amount of labor involved and none of the silver is removed from the pieces polished, for no abrasive is used. The machine consists of a revolving barrel, filled about half full of small steel balls and small steel pins, the latter with rounded points, and all harder than glass and so smooth they cannot possibly scratch. The balls burnish the flat surfaces and the pins enter all indentations, such as are made by ornamentation, thus polishing them.

First, the silverware is assorted and then a quantity of similar pieces are placed in the barrel, on top of the steel balls and pins, together with a sufficient quantity of neutral soap and warm water. The lid of the barrel is then clamped down and an electric motor causes the



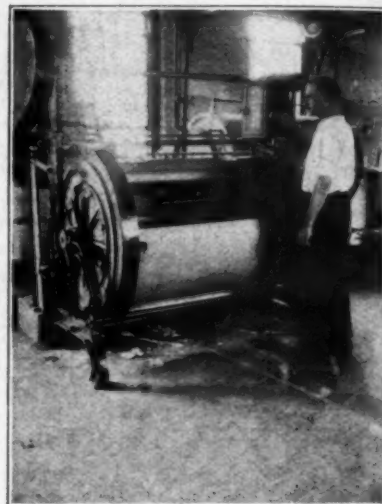
Silver burnishing machine in use at Mt. Sinai Hospital, New York City. This outfit consists of a large machine with a small one attached to its side.

barrel to revolve. After ten or fifteen minutes the silver is taken from the machine, rinsed in warm water and dried with a soft towel. New silver is polished in a similar manner in the factory, and therefore this process gives old silver the finish and appearance of new.

This machine will also be found useful for polishing such surgical instruments as do not have a cutting edge, of which there is always a great variety. Placed in the machine and run for a few minutes, they will come out perfectly burnished and brilliant. The machine is made in various sizes, to meet the requirements of hospitals or other institutions, large or small. The accompanying illustration shows a large machine with a small one attached to the side of the same base, an outfit used in Mt. Sinai Hospital, New York City, which really consists of two machines.

A FLAT WORK TUMBLER

What is known as a flat work tumbler is not in general use in hospital laundries, although this machine is in common use in commercial plants. The flat work tumbler should not be confused with a drying tumbler, or heated tumbler, as it is sometimes called but both of these machines are similar in some respects. Both consist of an outer shell with an inner cylinder which revolves. The flat work tumbler is not heated and its function is not to dry the goods. When a load of flat work comes from the extractor, the pieces are tightly packed together and it is hard for the shakers at the flat work ironer to open them up, straighten them out



Flat work tumbler in use at Good Samaritan Hospital, Cincinnati.

and put them into condition to be fed into the machine. An accompanying illustration shows a flat work ironer that recently was installed in the Good Samaritan Hospital, Cincinnati. It was found that the use of this machine loosened up and untangled the goods, and thus it saved considerable time and enabled a given number of shakers to handle an increased amount of work. With the present shortage of labor it is hard to get shakers for the laundry department, and it was found in this hospital that the tumbler afforded at least a little relief in this respect.

DR. GEORGE E. BENSON DIES

Dr. George E. Benson, who, for the past several years was a member of the staff and the advisory board of St. Mary's Hospital, Minneapolis, Minn., died July 31 at Minneapolis.

Dr. Benson was graduated from the medical school of the University of Minnesota in 1901 and later studied three years abroad at the Royal Academy of Ophthalmology and Otolaryngology, and of the Minnesota Academy of Ophthalmology and Otolaryngology, and became widely known for his treatment of diseases of the eye, ear, nose and throat.



HOLY CROSS HOSPITAL AT SALT LAKE CITY, UTAH. ARCHITECT, BERNARD MECHLENBURG. CRANE HEATING EQUIPMENT WAS INSTALLED BY J. E. HANEY, CONTRACTOR

TESTED EQUIPMENT TO PROVIDE UNFAILING HEATING

Comfort of patients is a first essential in any hospital treatment. To provide it, your heating system must be adequate and dependable. The piping connecting the boilers and radiators deserves careful selection. Crane materials and factory methods satisfy all requirements of equipment that must give

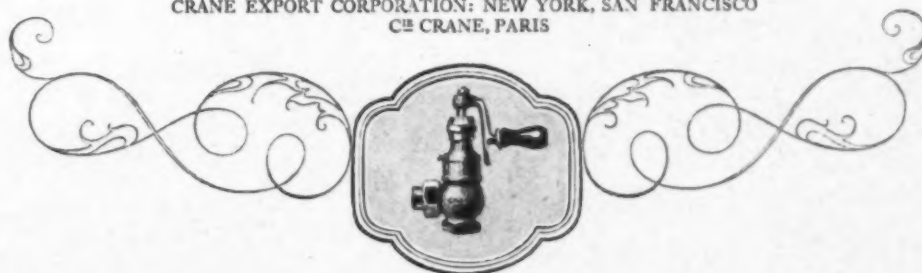
long, continuous service. In the design and manufacture of Crane valves, fittings, piping and specialties for hospital needs, every practical precaution is taken to insure unfailing quality. A factory inspection or test imposed on each unit guards the trustworthy character of Crane piping materials.

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Crane Modulating Radiator Valve No. 231

DISPENSARIES AND OUT-PATIENT DEPARTMENTS

Conducted by MICHAEL M. DAVIS, JR., Ph.D., Executive Secretary, Committee on Dispensary Development, United Hospital Fund of New York, 15 W. 43rd Street, New York
and by ALEC N. THOMSON, M.D., Director of Medical Activities, American Social Hygiene Association,
370 Seventh Avenue, New York

DOCTOR AND CLINIC: A STUDY OF "FREE CHOICE"

BY CLARE TERWILLIGER, R.N.

WHILE associated for nearly a year with a community nursing service to the nineteen hundred odd residents of the block between Second and Third Avenues on East Thirty-Ninth Street, in the borough of Manhattan, New York City, the writer had opportunity to come into intimate touch with the habits and customs of the people. The houses are crowded, old law tenements; the inhabitants are in very moderate circumstances; many are poor. Clinics and hospitals, as well as private doctors, are accessible. How and why in the case of sickness do the people select doctors or hospitals or clinics?

Summon Doctors Because of Uncertainty

Uncertainty about the nature of the disease which a person seems to have, appears to play a greater part than the severity of the illness in determining whether or not to call a doctor. If the disease is recognized, remedies are used which are suggested by some older member of the family or some neighbor "who always knows what to do." If a child with measles, for example, instead of growing better, begins to feel as if it were burning up and breathes very rapidly, that element of uncertainty provides a reason for calling a doctor. If the family belongs to a group of friends of neighbors in which there is one person who has a family doctor, that person is consulted and her doctor is called. The use of a single doctor as the regular family doctor is, however, unusual. If the family does not belong to such a clique the nearest doctor is called.

If the family is Irish and the patient grows better, the doctor's fine qualities are lauded up and down the street for months. If the patient does not grow better in a very short time, another doctor is called. As many as three different doctors have been called in a case of acute illness lasting only four days. If the patient dies, the members of the family and the interested neighbors are likely to state publicly, as frequently as the opportunity arises, that the doctor killed the patient.

If, on the other hand, the family is Italian and the illness is severe, the doctor is requested to bring a professor and the money is gathered somehow to pay him before he leaves the house.

Fear Hospital as Last Resort

Almost without exception people of both nationalities are loath to go to the hospital. They do not like the food. It is more distressing to adjust themselves to a different

diet than to suffer. There is also a feeling or superstition which they seem to have inherited, that a hospital is a place of last resort where people go to die. They prefer to die at home. Even though they know of many cases that have had excellent care and have recovered in a hospital, one little story of hospital neglect (whether true or not) counterbalances all the good they have ever heard.

Those who will go to a hospital are divided into two classes, those who will ride in an ambulance and those who will not. Some few people have acquired a great devotion to some institution and will call an ambulance in any case of illness, while a neighbor will stay at home and suffer from neglect because she will not ride in an ambulance. One of the chief objections is having a policeman call at the door. If it were possible to ride up to the admitting ward in a taxicab, she would go gladly. The hospital ambulance seems to be classified with the police patrol.

In the case of maternity care, almost all the people prefer to remain at home. All the Italians call midwives. The Irish call doctors unless their finances are very low; then they too call midwives.

It is difficult to get people to go to clinics, partly because they take pride in telling that they have had the doctor and partly because they hate to "sit and wait so long." Rather than spend the money to go to a doctor's office, they will finally go to a dispensary, but they usually wait until the condition is so bad that it is a difficult case for a dispensary to handle, and then they are not willing to go to the trouble of carrying out the orders and returning as often as they should. They are disgusted with their treatment if they are not given a bottle of medicine.

False Impressions of Hospitals

At mothers' club meeting one member is apt to announce that she "loves" Bellevue because they were so nice to her when the old man was sick and if her John has to have his tonsils out, she certainly wants him to go there. A neighbor will remark that she would not send a dog there because there was a snippy nurse in the ward when her baby was being treated for bowel trouble. The argument may last an hour or even more, but the final statements on both sides are identical with the original premises, and the two contestants part as friends.

It takes a very little thing to swing the balance. Last summer a woman who was ill had two children who had impetigo. One child was cared for by an old woman of

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"that invisible stiffness"

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For your convenience, we have established warehouse points as follows:

ATLANTA, GA.
The Phoenix Supply Co.

BROOKLYN, N. Y.
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—it penetrates every thread

That's the amazing property of Satin Finish, the sizing that restores the original newness and adds more wear to fabrics.

Sprinkled over the wheel while running last rinse or blue water, the crystals instantly dissolve like snow flakes and form a perfect solution. Satin Finish puts just the desired stiffness into the thickest and thinnest materials—the thicker the fabric the more sizing is absorbed and vice versa. The action of the wheel forces the solution through the goods leaving the sizing firmly absorbed in every fibre—not a mere surface coating. Soil, stain and perspiration do not become imbedded in the threads, they are retained by the sizing and carried away in the next washing.

When you see for yourself the protectiveness of Satin Finish sizing and the attractiveness it adds to old and new materials—you will never be content to use ordinary starch again.

Satin Finish is the same sizing that has been used in the cotton mills for the last twenty-five years now modified for laundering purposes. It is 95% Pure Starch Basis. It saves time, labor and gives results that are incomparable.

Satin Finish is used in leading laundries everywhere and is now available to hospitals. Try it on a load of uniforms, aprons, shirts or soft collars.

Look for the Satin Finish labels on the barrel head and side.



THE KEEVER STARCH COMPANY

HOSPITAL DEPARTMENT

COLUMBUS

OHIO

the block who has doled out remedies to her neighbors for years. The other was cared for by a woman whose child had had impetigo and had been taken to a skin clinic by the nurse from the neighborhood center and taught how to treat the disease and prevent its spreading. The latter child was well in a few days. The other one was brought in to the nurse's office in a week with the whole body covered with open sores. When given correct treatment it responded quickly. That one experience has made it possible to get corrective work done for many children and others in that whole social clique, who now show great respect for clinics.

A classification of the type of medical care in relation to age indicates that the doctor is sought in a larger proportion of cases among children than among persons of working age, and in fact, there is a distinct tendency for the patient to fail to secure care or to secure only non-medical service as years advance. These conditions are due in part to the kinds of diseases incurred and the economic necessity of production in the older age periods. The majority of conditions incurred in the childhood period (less than 15 years of age) are of infectious, traumatic, respiratory, or nutritional character. They are for the most part acute conditions accompanied by the prostration of the patient. The concern of the parent is immediate and the nearest doctor is hastily called. With increase in age the acute prostrating conditions are less frequent. Chronic diseases of long standing have a higher count.

Ambulant conditions are more common. The patient, accustomed to his symptoms, seeks relief more or less methodically through the usual channels (the nearby doctor, hospital, or clinic) or treats himself with home remedies. After failure to secure relief under the advice of private doctor or self medication he turns more and more frequently to the clinic. The patient feels his condition is obscure, and asks thorough examination, diagnosis and treatment. The increase in the popularity of the clinic in the older periods is distinctly associated with the greater frequency of long standing, chronic complaints of ambulatory character, as well as with the comparatively small earning power of this block on East 39th Street.

NEW REPORT FORM FOR DISPENSARIES AND HOSPITALS

UNDER a law passed in 1899, the New York State Board of Charities is required to license and supervise all dispensaries. Annual reports in a form prescribed by the board must be submitted by each licensed institution. A new report form, just prepared, will be of interest, particularly in its statistical items required, to dispensary administrators generally. This is elucidated by an "instruction sheet," containing definitions of terms, etc.

A committee of superintendents, under the chairmanship of Doctor George O'Hanlon, superintendent of Bellevue and Allied Hospitals, has been at work with the staffs of the Associated Out-Patient Clinics and the Hospital Information Bureau of the United Hospital Fund, consulting with officials of the state board regarding the annual report forms, both for dispensaries and hospitals. A new hospital form has also been issued.

A financial report is required in addition but, owing to the fact that the fiscal year previously ending June 30, has been changed by the State Board of Charities to correspond hereafter with the calendar year, the institutions at this time are not asked to furnish the financial items.

EXPLANATIONS REGARDING DISPENSARY FORM

ANNUAL REPORT OF..... Dispensary
located at
for the fiscal year ending.....

TO THE STATE BOARD OF CHARITIES,
The Capitol, Albany, N. Y.

Pursuant to the provisions of section 10 of the State Charities Law (Chapter 55 of the Consolidated Laws), the following report for the fiscal year indicated above, is herewith submitted.

A. GENERAL INFORMATION.

- When opened.....When licensed.....Location.....
- If a branch of a hospital or other institution, give incorporated name of main organization.....
- Incorporated under (Special Act—General Law)—Date of incorporation.....
- Title of governing board (Board of trustees, etc).....
Number of members.....
- Names and addresses of
President
Secretary
Treasurer
- Chief administrative offices, Name.....
Title..... Date appointed.....
- Head of medical service, Name.....
Address..... Title.....
- Restriction upon admission of patients (State restrictions as to:
a. District or territory. b. Age. c. Sex. D. Diseases).....
- Fees charged
a. General admission fees (please specify if these vary in special departments): For first visit..... For subsequent visits.....
b. Medicines (per prescription)..... Appliances.....
c. Other charges

B. STATISTICS.

- Services or departments maintained and statistics for the year covered by this report (check each service maintained whether as a separate department or as part of some other department).

Service or Department	Check service maintained	When Open	Number of Individuals treated	Revisits	Total visits
Medical	Days	Hours
Surgical	of week	of day
Obstetrical
Gynaecological
Genito-urinary
Syphilis
Pediatric
Eye
Nose-Throat
Ear
Orthopedic
Skin
Neurological
Psychiatric
Alcohol—drug
Tuberculosis
Metabolic
Dental
Other

- Treatments at homes of patients: (a) Number of patients.....
(b) Number of visits: By physicians..... By medical students.....
By nurses..... By social workers.....
Total.....

Question 7—"Head of Medical Service"

By this is meant the president of the medical board or whatever official is the head of the medical work of the dispensary, as distinguished from its administrative activities. The term "medical service" is not to be taken as meaning the medical department as distinguished from surgery or specialties, but is intended to mean the medical work of the dispensary as a whole.

Question 8—"Restriction Upon Admission of Patients"

- State either the district (territory) from which patients are admitted, or the area from which they are not admitted.
- and (c) State any age or sex groups which are not admitted.
- State types of diseases admitted in the case of special dispensaries, or in the case of general dispensaries state the diseases not accepted.

Question 9—"Check Service Maintained"

If a disease or a group of conditions is treated in one service which is part of a department, check service and write after it the name of the department of which such service is a part. For example, if syphilis is treated in the skin department, check both syphilis and skin, and write after the check opposite the word syphilis, the word skin.

The statistics in the five columns which follow the column headed "check service maintained," are to be filled in only for those departments or services which are maintained as separate entities.

"When Open"

Name the days of the week during which each department is open and specify in the other column, hours of the day.

"Number of Individuals Treated"

This means the number of persons treated in each department considered separately. The number of different individuals treated in the dispensary as a whole is not asked for. The total of the individuals treated in the different departments is not equal to the number of individuals treated in the dispensary as a whole, since some individuals are treated in more than one department.

I repeat that all power is a trust, that we are accountable for its exercise, that from the people all springs and all must exist.—Disraeli.

GLASS TUMBLERS



No. 444
One Ounce Capacity

Mr. Hospital Superintendent:-

Did this thought ever occur to you?

Suppose you were to pay $\frac{1}{2}c$ for a drinking vessel made of some substance, the nature of which would preclude the possibility of its being used more than once.

Then suppose you were to pay 6c for a good durable GLASS TUMBLER, that is capable of being used over and over again, and of being thoroughly cleansed either by hand washing or in a mechanical washer.

Your substitute containers at $\frac{1}{2}c$ each would cost you 6c for every twelfth time a patient is served. Your GLASS containers at 6c each will perform the same service and with good luck and proper care, you will have the tumbler for continued use, and each time the tumbler is used after the twelfth time, you are getting service without expense—if your drinking vessel costs are predicated on the price of an article whose service is at an end with one using.

Then consider the inherent nature of GLASS as against that of any other substance of which drinking vessels can be made.



No. 479. TUMBLER
Eight Ounce Capacity

Is there any real reason for not using GLASS TUMBLERS?

HAZEL-ATLAS GLASS CO.
WHEELING WEST VIRGINIA

OCCUPATIONAL THERAPY AND REHABILITATION

Conducted by NORMAN F. BURNETTE, Canadian National Committee for Mental Hygiene, 102 College St., Toronto, Ont., and MRS. CARL HENRY DAVIS.

Advisor in Occupational Therapy, 825 Lake Drive, Milwaukee, Wis.

Co-Editors: LORING T. SWAIM, M.D., 372 Marlboro St., Boston Mass., and
MISS MARY E. P. LOWNEY, Room 272, State House, Boston, Mass.

OCCUPATIONAL THERAPY FOR CHILDREN

BY ISABELLE WHITTIER, CHILDREN'S WARD, MASSACHUSETTS GENERAL HOSPITAL, BOSTON, MASS.

IN MY first paper, "Occupation For Children In Hospital Wards," I gave my methods with sick children.

This second year, I have tried to find the desirable characteristics of an occupational therapist for children; what results she should expect; new ways of usefulness in the wards; to single out some of the most generally desirable play implements; and to experiment in finding special occupations for special sicknesses.

An occupational therapist for children should be a psychologist, a teacher, a disciplinarian (without any apparent disciplining), a nurse, and a born entertainer. I do not claim to be all of these.

In order to have children in the ward happy, the best help towards health, their occupational therapy must be largely recreational. Sometimes just carrying a child pig-back about the ward or making him laugh aloud seven or eight times is the best part of a day's work.

The result of occupation is much less important for children than it is for adults. With adults, the finished object, fashioned by his own hands is important. It may even be symbolical to him of his own condition, completely restored to health. Not so with children! The attitude of mind, while a child is making the article, is the most important thing. If he is happy in the making, not bored or discouraged, I do not care so very much how the object looks.

During the doctors' visits and clinics, I try to carry out Dr. Talbot's wish, that each baby should be held by a woman, at least ten minutes every day. For the youngest children our choicest toys are brought out. The older children look forward to the visits, and sometimes, of their own accord, copy my playful finger-on-lips attitude, making of the necessary silence for examination and consultation a little drama.

A good deal of time has been spent trying to stop unnecessary crying in the wards. A baby gets into the habit of crying when there is no reason for it. A persistently crying baby can make all the babies cry. I first get the physician's diagnosis of the case and see that there is nothing binding or pricking or making the baby uncomfortable in any visible way. If there is any doubt in my

mind I ask the doctor or nurse if the baby can be suffering.

After watching him for a while, I stop him suddenly at the moment when he shuts his eyes, screws up his face, wrinkles his nose and opens his mouth to send forth the howl. This is accomplished in whatever way seems best. Sometimes a quick "Sh, Sh!", sometimes by clapping my hands sharply once or twice, then touching his shoulder gently and talking to him softly but accenting certain words—"Now, now, now, you are going to stop that nonsense and be a good baby." The way is different with each child, but some slight surprise is necessary in the beginning and, generally, the persistent reiteration of whatever phrase is chosen. The moment of remonstrance is important. It is the second before the cry would be vocalized. By accomplishing this, say fifty times, in succession, the baby's attitude of mind is changed. Often the preliminary grimaces persist for some time after the crying has ceased. We stood, the doctor, head nurse and I, for ten minutes one day watching and laughing at a baby, who, after the training, started repeatedly all

the preliminary grimaces of crying. He always stopped of his own accord before the cry came, looked surprised himself, and questioningly at us as if to say—What is the matter anyway! And he never found out.

Some of the recreations most valuable in my work are the three B's. Bean-bags, balloons, and bubbles. Bean bags, in the hospital ward, alone would fill a chapter.

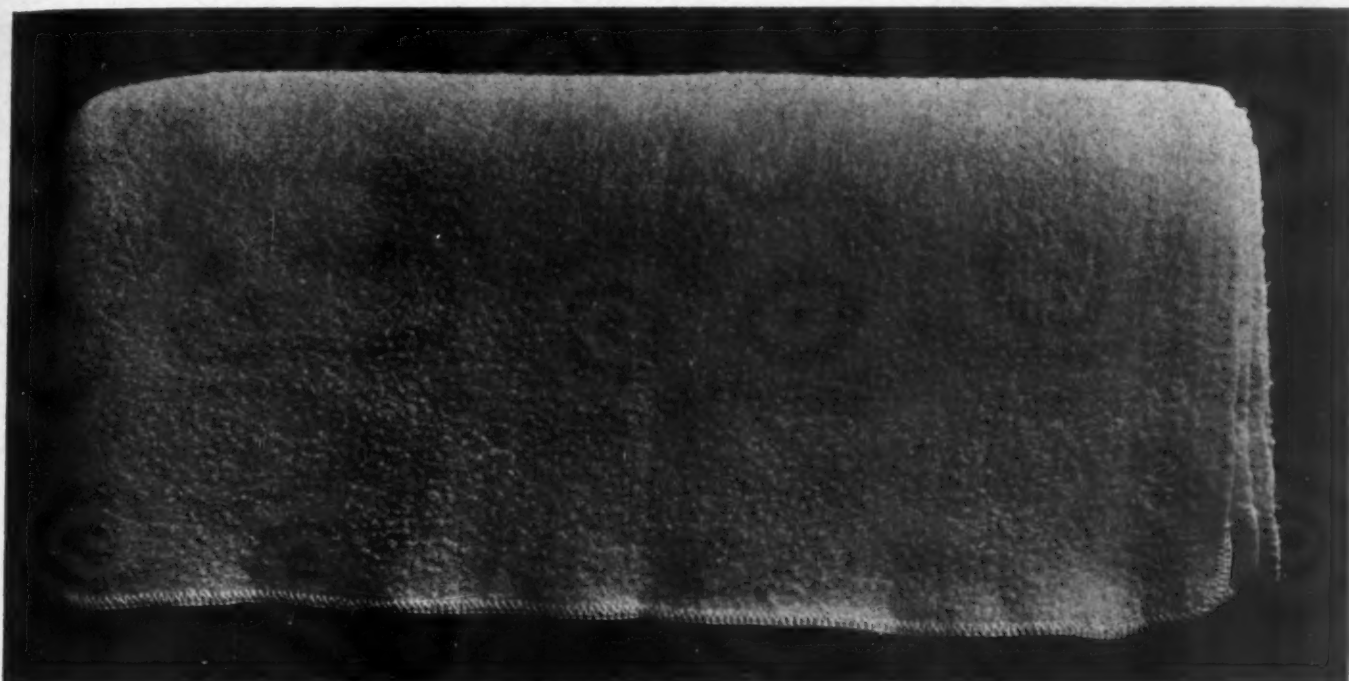
I have six red and six blue bean-bags, five inches square, filled one-third full of beans. With so few beans they are not so apt to hurt if they hit anybody and they make more of that pleasant rustling rattle that the children like. Just tossing them to and fro brightens the wards and gives a good appetite for dinner. The failure to catch them usually means tight muscles, so we stop and waggle our hands to make them loose. After tossing the bean-bag a while we catch it with one hand instead of two, then, catching it with one hand, we toss it to the other hand before throwing it back, next we catch it with one hand and throw it up into the air before the return throw.

The usual tests to ascertain the mentality of children



Balloon bouncing is a popular amusement in children's wards.

There is ECONOMY— as well as Comfort and Pride in the Huyck KENWOOD PURE WOOL HOSPITAL BLANKET



April 14, 1922

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"..... I am taking the liberty of sending you a blanket which you placed in the Hospital in November, 1914, and it has been through all sorts of hardships with constant wear and tear in the wards, aside from the terrible strain that blankets receive going through the laundry.

Your blanket has stood up so wonderfully well through all the strenuous tests it has been put to that I am personally interested in having this blanket duplicated for our next order. We have had several firms quote us on blankets and send us samples, but as yet I have never found one that can take the place of the Huyck blanket that you furnished us in 1914."

(Name of institution on request)

This pure wool blanket has seen

8 YEARS'

*Strenuous Hospital Service—
still in daily use.*

Kenwood Blankets Afford You These Advantages

Pure, resilient, soft wool for Comfort.
Cheerful fast colors.
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Nap that does not wash away.
Long wearing serviceability.

Sizes

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*Color swatches and full particulars will gladly be
mailed on receipt of request with name of institution*

F. C. HUYCK & SONS
KENWOOD MILLS **Albany, N. Y.**

When using advertisements see Classified Index, also refer to YEAR BOOK.



Colored nature charts are attractive and interesting to children.

are very difficult to use when quiet and isolation are impossible and many children, when ill, have to be managed and coaxed into using them at great expense of time. You can determine a good deal of a child's mental state by playing bean-bags with him. He does not suspect that anything special is being done and he is interesting and unconscious. After tossing the bean-bag to and fro for a while, you propose clapping once before catching it then, two, three, up to eight times. A child cannot clap many times without relaxed muscles and only slightly separated hands. You learn, in doing this, whether a child can count or not—and something of his power of concentration. A red and a blue bean-bag kept going in rhythmic round prove co-ordination and deftness in the use of hands. For this, I toss a red bean-bag with my right hand into the child's left. The child catches it with his right hand into my left. The same thing is going on at the same time with the blue bean-bag so that movement is continuous. This exercise is too exciting for a child who is not well on the road to recovery and he should be out of bed and standing.

Ways of Averting Tears

Twice, I have had interesting experiences with babies and bean-bags. One of them was with a baby about a year old, recovering from pneumonia. He had passed his crisis safely, with nothing to retard his recovery and he should have been getting well rapidly. He would eat very little and refused to be roused by any direct attempt. A fairly well child stood near the head of his bed. I stood near the foot. Without noticing the baby in any way we began to toss a red bean-bag. Whether it was the cheerful splashing sound of the beans or the sight of the red thing flying through the air, I do not know, but the baby suddenly sat up and laughed aloud at the first throw. Eight or ten times the baby laughed aloud, every time we tossed that red bean-bag. I ended by tossing it onto the baby's bed and the sulky one actually tried to throw it back to me. We repeated the bean-bag throwing for a minute or so three days in succession, each time with the same result. The baby's recovery was satisfactory from then on.

One of the big rubber companies sells boxes of uninflated toy balloons of the six primary colors. From such

a box, the children pick out a balloon of the color they want, blow it up to the size they desire and tie it with a string. These balloons cannot hurt anybody and we use them as balls. They can hit bottles, electric light bulbs, people, without harm and they are noiseless.

Air filled balloons are much more manageable than those filled with gas, and they never escape and go up to the ceiling and sulk as do the gas filled ones. When the noise of bean-bag tossing is undesirable, balloons are especially welcome. We place the balloon on the palm of one hand and bat it with the other. I often bat it purposely so that it hits a child on his nose or chin or forehead, which always makes him laugh.

For children sitting up in beds we have contests. Two children hit their balloons up in the air once, twice, fifty times in succession, if possible, without failure. The child that keeps it going the greatest number of times wins and everybody claps. This is possible only once in a while when noise and some excitement are unobjectionable.

Blowing bubbles is another delightful variety of balloon play. The bubbles float as the balloons do, but are more evanescent and full of invitations to the imagination. Children are more interested in blowing bubbles after balloon play. There is very little trouble with too great license in the soapy water when I tell the children how the pipes are used. "Hold the pipe close to the water and dip it—not till it touches the bottom and breaks, not six or eight times, but—once when it says 'cluck'—the noise made by the pipe touching the water in the right way." They listen for the "cluck" and little water is spilled. In order to make the bubbles last longer and bounce, we add a few drops of glycerine to the water, on cloudy days, a few drops of blueing. What drift-wood does to



Such a child presents a problem to the occupational therapist.

an open fire blueing does for bubbles.

I am experimenting now with occupations for special sicknesses beginning with the cardiac cases. Generally, my work has been with children between the ages of five and nine inclusive. With a very weak child we do away with bed tables or trays because of the fatigue of their weight and use a box cover or a raphia plate. I place an hour-glass or rather minute glass on the box cover and let the child watch the sand run out and turn the glass.



A variety of amusement is needed for the child confined in bed.

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While new to you, the Puddings are by no means new to us, for we have been testing them a long time, to make sure they are good enough to bear the Ariston Brand.

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1923

Then I give him a watch and let him count the ticks, thus getting an idea of the duration of a minute. Often this is enough diversion for a morning.

Another day I put the glass globe with our lively little green turtles in it on the table beside him. He feeds and watches them. It takes a little more strength, but not much, to hold and turn the kaleidoscope that all children like and the patient is content for a good many minutes to note the changing bright designs.

There is a firm in the West that manufactures paper maché toys, the barnyard animals, hens, chickens, cows, horses and pigs. These can be handled without fatigue. Weaving paper strips through a linen mat is another occupation that gratifies without much fatigue. I give colored wooden beads for stringing when the arms can be used a little more, all one color first, alternate colors, two of one color and one of another color on a double string in a chain pattern.

Picture puzzles are satisfactory for these children. The puzzles are in all degrees of difficulty, from those of four pieces up to the intricate one of putting the map of the United States together. The box cover can be slightly elevated at one end for these pictures so that the pieces stay put.

Hammitt sells a package of good sized outline pictures which the children like to color with crayons or paints. Folding squares of paper into eight triangles and cutting makes a pretty eight-rayed figure, capable of untold variety. We do this first with white squares so that they resemble snow flakes, then with different colors. These, we stick into blank books found at the five and ten cent stores.

Sometimes we hang pictures at the foot of the bed and tell stories about them. These are some of the things



Light occupations of children in the ward.



"Mushn't touch". Even so, watching the pet turtles is a pleasant occupation.

that our cardiac patients do in the children's ward.

We have with us now a little boy five years old, Francis, a cardiac with complications. He has been with us for several months. For a long time he was too weak to turn in his bed or speak so that anybody could hear him and he was not interested in anything, not even his food. Now he has become interested in the minute glass, the green turtles and the kaleidoscope. He is even, today, stringing beads, lacing and buttoning with the

enthusiastic smiles. He called from across the room about the middle of the morning:

"Playlady, is dinner time most here?"

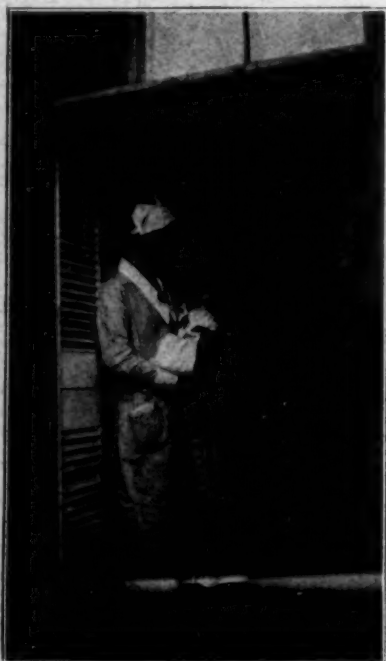
"No, Francis. Dinner won't be ready for an hour."

"I ain't a goin' ter cry Playlady but will you give me a hankfis?"

As a result of the experiences of the past year it has been concluded that an occupational therapist for children must be much more than a giver of appropriate materials; that the results of work are less important than the condition of mind while working. It has been found possible to stop much of the crying in the ward, that balloons, bean-bags and bubbles are among the most useful of the play implements and that children with all degrees of cardiac trouble can be diverted in ways that are harmless.

DISOBEDIENT PATIENTS PUT IN STOCKS

"And whatever poor person shall be found a swearer or an unreverent user of his mouth, towards God or his holy name, or a contemner of the Matron, or other officer of this house, or that shall refuse to go to bed at the lawfull houres before appointed, him shall ye punish (after once warning given) in the stocks, and further declare his follie unto the Almoners of this house.



Even the tiniest member in the ward demands entertainment.



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We offer **non-boilable** sterile catgut **Ligatures** 000, 00, 0, 1, 2, 3, and 4 plain, and the same in 10, 20, and 30 day chromic. These ligatures are very flexible. Also the same sizes and kinds in the **boilable** grade and iodized catgut ligatures, 000, 00, 0, 1, 2, 3 and 4.

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WHAT IS REHABILITATION?

By GERTRUDE R. STEIN, ASSISTANT, NEW YORK STATE BUREAU OF REHABILITATION.

THE training of an injured worker for a new job has developed from the work for the disabled soldiers. Those working in the industrial field have had the advantage of learning from the successes and failures of those who have worked with the soldier cripple. The problems are very different, however, because the psychology of the soldier and the civilian are so different. The field is a new one, so new that the public hardly knows that there is such a movement, although thirty-four states have already established state bureaus of rehabilitation as a part of their governmental machinery. The state has come to see that it is its function not only to pay compensation to its disabled workmen but also to help return them to employment. The state now realizes that it has a social duty to do everything in its power to assist men injured in its factories and workshops. To give a man compensation is not enough.

Rehabilitation Work that Counts

What is rehabilitation? It is not merely a simple equation. Experience has taught that a disabled soldier plus commercial or industrial training does not necessarily equal rehabilitation. It has been learned that training alone will not remake an injured workman into a wage earner. You can pour any amount of knowledge into a man's head but if he is not interested in applying this knowledge or does not know how, it is of little value. Training is not a miracle. A man must have ambition, initiative, adaptability, patience and courage to re-adapt himself to a new job. Mere school learning will not give him this. Rehabilitation work which does not emphasize morale, the habit of working for what he gets, is valueless.

Many people justify everything that has been done for the soldiers by saying that the soldiers sacrificed their lives for us and any amount we spend for them is not too much. This is true. We can never repay them. We certainly do not repay them by sending them to schools that do not prepare them for work. What a man wants is a job. Many of the schools to which our disabled soldiers are sent do not prepare them for any useful occupation.

The state bureaus of rehabilitation have had a certain advantage over the veterans' bureau in that they have had smaller numbers to deal with in beginning their work. They have had an opportunity to develop both the principles and technique and carefully, which has been impossible for those engaged in soldier rehabilitation, because of the tremendous load under which they struggled from the beginning.

Rehabilitation work, first, to be effective must be practical. If there is vocational guidance to be given it must be based on facts, not theories. There are too many people in this country giving what they call vocational guidance whose knowledge has been gained within the four walls of a school room. Possibly they have visited a few factories, but such visits have been casual. The disabled workman who comes to a bureau of rehabilitation, discouraged and timid about asking for something he fears the state will call charity, is in no mood to receive a theoretical lecture on work in general. What he wants is advice from a person who knows not alone industry in general, but *processes* in particular. To gain his confidence one must speak his language and think as he does, an

ability only acquired by actual association under employment conditions.

A skilled iron worker applied at the New York City rehabilitation bureau recently. He had twenty-five years' experience as an iron worker. Like most skilled workmen, he had never considered the possibility of changing his trade. Four of the fingers of his right hand had been pulled off in a machine. He received compensation from the state industrial commission. He could never be an iron worker again. He did not come to the bureau of rehabilitation to be told of the dignity of labor and of the benefits of industrial training. What he wanted was work. He hated nothing more than sitting at home doing nothing. When it was suggested to him that he could become an oxy-acetylene welder he was enthusiastic. "I don't know why I didn't think of it myself" he said "I've seen lots of welders but I never thought of any job for myself but my own." This man after a few months' training, secured work with one of the street railway companies as a welder at sixty cents an hour. "What I like about you folks" he said, "is that you're so practical."

Need of Definite Prognosis

Second, the physical side of the problem must be emphasized. No real plan of rehabilitation can be made without a definite prognosis from a doctor. There is nothing more discouraging to a disabled man than to start at a job and to find he is physically unsuited for it. Unfortunately, doctors have not enough industrial background as a general rule, to make definite recommendations as to work to a patient. If a man has tuberculosis he is still advised, in many instances, to take an outside job, despite the latest information by authorities on this disease. If he has a cardiac condition, he is told to do "light work." The doctor does not always consider that most outside work is too heavy for the tuberculous and exposes them to violent changes of weather, and that "light work" does not give a very definite picture to the average workman's mind. We cannot expect our doctors to be industrial experts. It is the function of the good rehabilitation worker to be able to interpret the indefinite work plans of the doctor into definite jobs for his patients. There must be the closest co-operation between the doctor and the rehabilitation worker. The emphasis must be always on helping the man get well first. While vocational rehabilitation is secondary, the job may often be made an important part of the physical cure. A tinsmith, who had followed this trade for twenty years, had a serious cardiac condition. Like many cardiacs, he developed a very morose attitude towards life. As soon as he felt a little better, he would try tinsmith work, but it always proved too heavy and he would have a relapse. Finally he came to the conclusion that he must learn a new trade. He was interested in barber work and the doctor advised that this was a much more suitable trade for him than his previous one. His physical condition was carefully watched while he was in training. He felt much better while he was doing the work than he had in years. Finally he secured work in a barber shop. He found he could do the work in a small shop where there was not too much of a rush. Working under such conditions, there is good reason to believe that he can be steadily employed.

We have spoken thus far of the more practical as-

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pects of the problem. These are essential but they are of little value if we cannot carry along with them the development of the disabled man's morale.

Need for Keeping Up Morale

We must not forget that in advising the handicapped man we have a very different problem than in advising the young school graduate who is not disabled. The man who has spent months and sometimes years in a hospital starts out with a lack of initiative and inventiveness which it is often difficult to give back to him. To the question "What kind of work do you want to do?" the average disabled man answers "Anything," or "Whatever you tell me to." He has never thought of a new trade in the hospital. Even where he has had occupational therapy work, it has had no connection with the industrial world to his mind. A man's family, as a general rule, does more to help him to lose initiative than to regain it. Most women like to mother some one weak and helpless. They hate to admit to themselves that their sick ones are no longer dependent on them.

There are a number of things rehabilitation, to be real, must give back to the injured workman. It must give him initiative. It must give him the imagination to face his own problem, to see that he must picture himself as the young boy again, planning out a career. He must remember that he has lost many of his old habits and that he must again regain them. In some cases, he must learn to *want* to work again.

Rehabilitation means all this and much more. It is not an easy job. How can we help to bring it about? We cannot expect 100 per cent success in such an undertaking nor can we look for large numbers of rehabilitations. This is a new science. We must go slowly and be thankful for whatever little we accomplish.

Requires Flexible Organization

To make rehabilitation possible we must devise a flexible organization. We must forget our old preconceived notions of governmental bodies. We cannot have one highly paid expert and a great many poorly paid clerks. This is a field as technical as that of any doctor. Every job is one that requires training, experience and a natural adaptability for the work. Rehabilitation will never be effective if it is directed by a few people who sit in offices, devise policies but never see cripples. There must be a certain number of rules but these should be as few as possible. The rehabilitation worker must be a person of the highest professional standards and of real ability. A worker of this type will not do as constructive work under an inflexible bureaucracy as he will under a more flexible system. There are certain general policies settled by law which must be enforced, but each disabled man must be treated as an individual, not as "a case" if a real job is to be done. There is certainly no social job in which there is more need of individual work than this one.

This is a human institution we are creating, but its result is economic. Rehabilitation is not possible if we merely initiate another cold unresponsive governmental agency. Were you ever in a little town which boasted that its doctor was its best friend? You remember that man who could cure everything from croup to arteriosclerosis and who could advise you when there was no other friend to whom you would turn. When you think of a rehabilitation worker don't think of a cross official who feels that because he is a state official he need no longer be civil. Think rather of that country doctor you knew with his broad outlook on life, his sound knowledge, his human feeling.

CONVENTION ANNOUNCEMENT

Arrangements for the annual meeting in Milwaukee on October 30, 31, and November 1 are in a forward state, and every indication leads us to believe it will be the best meeting we have ever had.

October is a lovely month in the Great Lakes District, and an ideal time for a vacation. Please make every effort to be present. Bring your membership card for use when registering your attendance.

The Hotel Plankinton has been selected as our Association headquarters and is quite near the Auditorium where our meetings will be held. Make your reservations early.

Many suggestions received from members have been incorporated in the program and it is believed that the topics to be dealt with will have a very wide interest for all our members.

Extra large space has been secured for the exhibition of work, and all members are asked to see that hospitals with which they are associated send in exhibits of work, charts, forms, etc.

Owing to the expense involved in unpacking, arranging and repacking the exhibits, including the necessary decorations and signs for the stalls, the board of managers has decided to charge an entrance fee for each collective hospital exhibit.

Exhibits should be addressed to Miss Irene Grant, Milwaukee Auditorium, Milwaukee, Wisconsin, and must reach there not later than Friday, October 26, at the latest.

Entrance forms, together with a money order for \$2.00 must be sent to Miss Irene Grant, Muirdale, Sanatorium, Milwaukee, Wis., at the same time that the exhibits are shipped.

A PIONEER PASSES

George Edward Barton, who for many years had been interested in occupational therapy recently passed away at Clifton Springs, New York.

An architect by profession, Mr. Barton had suffered several severe illnesses, during which he had come to believe strongly, because of his own experiences, in the curative value of work. Through wide experimentation, he developed various therapeutic exercises by means of occupations in which, as an artistic designer and craftsman, he was an adept. Many persons during the early years visited his studio in Clifton Springs; to observe the working out of his experiments in the cure of sickness by occupation.

For his interpretation of the spirit of the new therapy, he suggested the Phoenix as a symbol of reconstruction and supplemented it by the motto, "Beauty From Ashes."

Although for several years past he had not taken an active part in the affairs of the American Occupational Therapy Association, George Edward Barton's death recalls the fact that he was one of the little group who met in Clifton Springs in March, 1917, and founded the association under its first name of "The National Society for the Promotion of Occupational Therapy."

He contributed various articles on his theories to professional magazines and published books on the subject of occupational therapy and reconstruction.

Under the wide and starry sky
Dig the grave and let me lie.
Glad did I live, and gladly die,
And I laid me down with a will.

—R. L. Stevenson.



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—that Cream of Tartar is derived from grapes—rich, ripe, healthful grapes, grown in the famous vineyards of Southern Europe?

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THE ROLL CALL

Maryland

The final spring meeting of the Maryland Occupational Therapy Society was held in the weaving room of the Evergreen School for the Blind, Baltimore, Maryland. A very instructive paper on batik was read by Miss Freeman, and practical demonstrations were conducted by Miss Steinbach. This was particularly a social occasion.

Miss Nell Berry, formerly of Phipps Clinic, Johns Hopkins Hospital, has accepted a position at the Sheppard & Enoch Pratt Hospital, Towson, Maryland.

Meetings of the Maryland Occupational Therapy Society have been suspended until the first Thursday in October.

Michigan

On June 19-22, the American Psychiatric Convention was held in Detroit. A round table on this subject was held during this convention at Hotel Statler. Besides the occupational therapists from Michigan Institutions, this meeting was attended by doctors and others interested in occupational therapy. Mr. Kidner and Mrs. Slagle were both present. The exhibition was in charge of Dr. Ostrander of Kalamazoo State Hospital. He was assisted by Miss Marion Spear, director of occupational therapy of that institution.

The National Health Exhibit took place in Detroit June 7-16. A large exhibition and demonstration of occupational therapy was put on by various hospitals, schools, and the Michigan association. There are nineteen departments of occupational therapy in Michigan.

A sale and exhibition of the craftwork made by ex-soldiers, patients, and crippled children in Michigan institutions were held in Detroit, May 14-25. Six hundred dollars worth of material was sold.

The departments of occupational therapy in Michigan institutions have been unusually active this spring. The Michigan Association announces the opening of a new department at Eastlawn Tuberculosis Sanatorium, Detroit, Mich.

Missouri

Nineteen girls of the St. Louis School of Occupational Therapy completed their craft work and have gone out to do their practice work into several of the middle western states. Thanks to the kindness and generosity of Col. James A. Mattison they have been privileged to get some of their practice in the hospitals of the Military Home Service. Also Illinois and Wisconsin have kindly opened their doors to us and already the girls are enjoying a change of work and surroundings.

Miss Bess Sutton of Kankakee State Hospital has become State supervisor of Occupational Therapy in Missouri.

Pennsylvania

The occupational work in the tuberculosis dispensary at Reading, Pa., was started by Miss Olive Hough, head therapist at Hamburg and a graduate of the Philadelphia School of Occupational Therapy. Miss Clara Hufford and Miss Fry have given volunteer service during the winter and the work finished by the patients, consisting of trays, baskets, etc., has been sold at a fair held by the women's club. The proceeds of this fair have been

given to the patients and in some cases the sums received have amounted to ten or twelve dollars. A private patient has applied for occupational therapy work at home and it is planned to use the payment so obtained for the equipment of the shop. Miss Hufford and Miss Fry are orchardists but this will not interfere materially with their work at the dispensary. They are now planning that some of the lighter cases be given out-door, half-time work during the summer under medical direction. The work for the present will be under the auspices of the women's club. The need is apparent for a graduate therapist who will be able to cover all the work in the city under the direction of the visiting nurse association as well as the work in the dispensary and some private cases.

It was decided to change the name to "The Philadelphia Occupational Therapy Association" at a meeting of the Association of Aides at the Philadelphia General Hospital. The election of officers was held in May, as follows: Miss Helen Murphy, president; Miss Katherine I. Wellman, sec'y-treas. It was decided at that time to hold the meetings in the future at the different city hospitals. Miss Fulton invited the group to be the guests of Miss Garber and herself at the opening meeting in October at their home, The White Gate Studios, Bryn Mawr, Pa.

On May 28, Mr. Norman F. Burnette of the University of Toronto gave a lecture on the "Psychological Aspect of Occupational Therapy and its Application" at the assembly room of the Pennsylvania Society of Colonial Dames. The lecture was under the auspices of the board of directors of the Philadelphia School of Occupational Therapy and there was a large attendance of those interested in the work.

The Philadelphia School of Occupational Therapy kept open house and showed a small exhibition of student's work during Philadelphia "Art Week," April 21-28. On June 6 there was a reception at the school to the members of the graduating class and their friends; and from the 6th to the 16th, a large exhibition of the work of the class of 1923 was on at the school.

The Alumnae Association of the Philadelphia school held its annual luncheon at the New Century Club on Saturday, June 9th. Seventy-five graduates were present and the following officers were elected to serve for the coming year:—Miss Dora Howson, president; Miss Leonore Lloyd, vice-president; Miss Helen Lukens, secretary; Miss Elizabeth Hutchinson, treasurer.

The board of directors of the Philadelphia School of Occupational Therapy has purchased the property, 2200 Delancey Place, which has been the home of the school for the last two years. As the board had an option on the property, it seemed best to take it up at this time since the building is centrally located and well adapted in many ways to the present needs of the school. Alterations and improvements are now being made to the property which, however, is in exceedingly good condition.

On July 15, Danville State Hospital, Dr. J. Allen Jackson, superintendent, will open an occupational therapy department. Miss Voltz will be in charge. She is a graduate of New York Bellevue Hospital Nurses' Training School; Bloomingdale Psychiatric Training, and the Philadelphia Occupational Therapy School.

Wisconsin

The fifth class in occupational therapy was graduated from the training school at Milwaukee-Downer College in June.

The healthy know not of their health, but only the sick.—Carlyle.

Nurses Must Guard Their Own Health!



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The exclusive features which make the Arch Preserver Shoe the most satisfactory you can wear are patented and can not be successfully imitated. If you want happy, healthy, well-groomed feet you must look for the Arch Preserver Trade-Mark on the sole and lining



Nature plans that the foot rest on heel, ball and outside arch.



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The Arch Preserver Shoe satisfies both Nature and Civilization.

A NURSE usually thinks of herself only when she hasn't anyone else to think about. And so long as she is able to "get around" she never believes that her own health may be impaired.

But the little trying things that enter daily into her work may be undermining her nervous system, and bringing a breakdown at some later time. Take, for instance, foot aches and pains—the most common of her little worries.

The thousands of little foot aches and pains that she must bear in a day must certainly be wearing down her supply of nervous energy. She should eliminate such annoyances, and she can do it easily by wearing the Arch Preserver Shoe. It stops the discomfort and the pain, because it prevents the arch from sagging. A sagging arch, you know, strains the whole foot structure and makes comfort impossible.

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MEETINGS, CONVENTIONS AND CONFERENCES

PLANS FOR A. H. A. CONFERENCE NEAR COMPLETION

Plans are rapidly materializing on all phases of the forthcoming twenty-fifth annual conference of the American Hospital Association to be held in Milwaukee, October 29 to November 3.

With a program personnel of 129 people representing the most active figures in the hospital field who will be definite contributors in the way of addresses and speeches, the meetings promise to surpass those of past conventions in the wide range of information which will be able to be covered. In addition to this large number of speakers, many who are authorities in their various fields will be called upon to discuss the reports and papers. As has been the custom in past years, the discussions and round tables will be an important and interesting phase of the meetings. Those who are actively engaged in formulating the programs are doing their utmost to offer programs which will disseminate the latest knowledge and opinion on hospital problems of today and to stimulate those present to a greater share in furthering the ends of all hospital activity.

Extensive Model Kitchen Exhibit

One of the most interesting features of the conference will be the large number of exhibits pertaining to various angles of the hospital. An exhibit which will attract everyone interested in the equipment of the hospital will be that of the model kitchen, and diet kitchen with all its accessories. Floor space covering 2,706 square feet will be devoted to this one exhibit. It will be presented as an educational and not a commercial exhibit, and will be in charge of a managing committee of experts.

Another exhibit which will attract the attention of many will be a model hospital laundry in full operation. Building committees and superintendents who are contemplating reconstruction of their laundries will find many helpful suggestions which will make for the greatest efficiency in selecting and placing of equipment.

An exhibit which will rival the occupational therapy exhibit of last year which was considered the blue ribbon exhibit of the convention is being planned by a committee of the American Occupational Therapy Association. According to the plans of the committee, this exhibit will occupy at least a floor space of 1632 feet.

Discoverers of Insulin Invited

A demonstration which is of great significance as indicative of modern medical progress will be the practical demonstration of the treatment of diabetes by insulin. This will describe in detail the work being done by Drs. F. G. Banting and H. J. R. Macleod of Toronto Univer-

sity. The demonstration will be continuous throughout the week and will be conducted by personnel from the diabetic department of the Royal Victoria Hospital, Montreal. The president of the association has invited Drs. Banting and Macleod to address the conference but, up to press time, it is not known definitely whether or not they will be able to be present.

Exhibit Prize Small Hospital Plan

Several demonstrations of special interest to those whose attention is centered in hospital construction will be given by various organizations. Nineteen hospital plans including the prize and honorable mention plans of THE MODERN HOSPITAL'S recent prize architectural contest for the ideal small hospital will be on exhibit in Mechanics Hall.

Those interested in the best methods of conducting clinics will be given an opportunity to avail themselves of the work of the committee on dispensary development of United Hospital Fund of New York which will be sketched in its exhibit and demonstrations. The committee will endeavor to extend its knowledge in regard to pay and free clinics.

Social service workers will have ample opportunity to study and discuss their work in individual hospitals at the booth which will be in charge of the American Association of Hospital Social Workers. A general information service for all delegates will also be extended at this booth.

A committee of the American Association of Hospital Social Workers will hold a statistical exhibit of social work which is being carried on in hospitals throughout the country.

A tour of various hospitals in the city will be conducted by the Chicago hospitals October 26, and 27. Delegates will be taken from one hospital to another in machines.

In addition to the extensive building plans which the Hospital Library and Service Bureau will exhibit, this organization will also present an exhibition representative of the material and information collected upon every phase of hospital activity, and will demonstrate its methods of service now being extensively used by the majority of people engaged in the hospital field. A similar exhibit at the convention last year wakened such a keen interest in their service that during the week alone over 3,000 requests for bibliographies on various subjects came from the delegates, in addition to the constant demand for knowledge on diverse subjects.

A phase of hospital upkeep which is often overlooked but which will be given special attention at the conven-



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tion will be the problem of cleaning in the hospital. A committee assisted by a special fund for research on this subject will give a report on its work in this field. It is expected that this booth will be crowded with people eager to discuss the all important subject of cleaning methods in relation to present day scarcity of help and with a view toward maintaining maximum efficiency.

Among the papers dealing with various angles of hospital activity which will be read at the sessions will be one on "The Heart of the Hospital" to be read by Sister Rose Alexius, superintendent of the Good Samaritan Hospital, Cincinnati. Sister Alexius, from her experience and intimate connection in the various phases of hospital work, will be able to give an interesting presentation of the humanitarian element of the hospital.

Mechanics Hall—Exhibition Headquarters

It is planned that all construction exhibits, equipment and routine supplies will be arranged in the arena in Mechanics Hall for the convenience of all delegates. The five exhibition committees will each have their headquarters there.

In order to conserve time and to make the most of the important features of committee reports it has been decided that committee reports will be given broader discussion at the assemblies but will be referred to their special committees to be abridged before final publication. Technical reports will be distributed in printed form and will not be read. In formal presentation it has been decided that the chairman will take five minutes to emphasize the basic principles, and the reports will then be referred to their special committees for discussion. This method enables the delegates who are particularly interested in some special phase to arrange their schedules to include section meetings upon that particular phase.

Committees in charge of accommodations and arrangements wish delegates to familiarize themselves with the advantages which Milwaukee will offer in the way of adequate facilities for visiting delegates. The conference is fortunate in being able to hold its sessions in the Auditorium which will be ample in size and conveniently arranged for convention activities.

Ample Accommodations Assured

The chairman of the local committee makes this announcement in regard to living accommodations: "In behalf of the local committee allow me to say that there will be no difficulty in providing for suitable lodging for the members and delegates attending the conference, and also for the exhibitors and guests. There are ample facilities in Milwaukee to accommodate more than twice as many persons as attended at Atlantic city. It is, however, always best that all should make their reservations with the hotels as far ahead as possible. The local committee will guarantee to find suitable accommodations for any number up to 10,000. Some probably would prefer a room in a selected quiet family hotel for the week, if such were available and handy. These are available and handy to the Auditorium."

For the convenience of delegates, an appended list of the best hotels of Milwaukee with a statement of their rates is given below.

Hotel Aberdeen—909 Grand Ave.

\$1.50 and up, double \$2.50 and up. With bath, \$2.50; double, \$4.00. American plan, \$3.50 and up; double \$6.00 and up.

Hotel Astor—Juneau and Astor

\$3.00 and up.

\$1.25 to \$2.00; double, \$2.50 to \$3.50. With bath, \$2.00 to \$3.00. Double \$4.00 to \$5.00.

Hotel Carlton—Milwaukee St., corner Juneau Ave.

\$1.50 and up; double \$2.50 and up. With bath, \$2.50 and up; double, \$4.00 and up.

Hotel Charlotte—138 Third St.

\$1.25; double, \$2.00. With bath \$2.50; double, \$4.00 and up.

Hotel Kilpatrick—223-225 Third St.

\$1.50 and up; double \$3.00 and up. With bath \$2.00 to \$3.00; double \$3.50 and up.

Hotel Globe—Corner Wisconsin and Cass Streets

\$1.25 and up; double, \$2.00 and up. With bath, \$2.00 and up; double, \$3.00 and up.

Hotel Juneau—225-229 Wisconsin St.

\$1.25 and up; double, \$2.50 and up. With bath, \$2.50; double, \$3.00 to \$4.00.

Hotel Maryland—137 Fourth St.

\$1.75 to \$2.00; double, \$3.00 and up. With bath, \$2.50 to \$4.00; double, \$4.00 and up.

Hotel Martin—Wisconsin St., Corner of Van Buren

\$1.50 to \$2.00; double, \$2.50 to \$3.00. With bath, \$2.25 to \$3.00; double, \$3.25 to \$5.00.

Hotel Medford—Corner Third and Sycamore

\$1.75 and up; double, \$2.75 and up. With bath, \$2.25 to \$3.00; double, \$3.50 and up.

Hotel Miller—Third St. near Grand Ave.

\$1.75 and up; double, \$3.00 and \$3.50. With bath, \$2.25 to \$3.50 and up.

Hotel Pfister—Wisconsin and Jefferson Streets.

\$2.50 to \$3.50; double, \$3.50 and up. With bath, \$3.50 and up; double, \$4.50 and up.

Hotel Plankinton—West Water, corner Sycamore.

\$2.00; double, \$3.00. With bath, \$3.00, and up; double, \$4.00 and up.

Hotel Republican—Third St., Corner Cedar

\$1.50; double, \$2.50 and up; double, \$3.50 to \$4.00.

Hotel Randolph—134 Third St.

\$1.25; double, \$2.00. With bath, \$2.50; double, \$3.50.

Hotel St. Charles—City Hall Square

\$1.25 to \$2.00; double, \$2.00 to \$3.00. With bath, \$2.25 to \$5.00; double, \$3.50 to \$6.00.

Hotel Wisconsin—Third St. near Grand Avenue

\$2.50 and up; double, \$4.00 and up.

AMERICAN SANATORIUM ASSOCIATION RE-ORGANIZES AT ANNUAL MEETING

One of the outstanding features of the eighteenth spring meeting of the American Sanatorium Association was a reorganization which divided the association into three sectional groups, Eastern, Mississippi and Western. The meeting was held at Santa Barbara, Calif., June 19. It was planned that each of these sections will have its own mid-winter meeting, and will join in a common meeting to be held with the National Tuberculosis Association in the spring.

Interesting discussions on various phases of the tuberculosis institution marked both of the sessions of the program. A discussion upon what direction institutional care of tuberculosis cases is taking and with what results, was opened by Dr. Ray W. Matson. The discussion on the private sanatorium was opened by Dr. Robert A. Peers.

Dr. Gertrude E. Sturges, assistant secretary of the Associated Out-Patient Clinics, New York City, has just returned from two months in Europe where she visited clinics in Paris, Strassbourg, Vienna and London.

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NEWS OF THE HOSPITALS AND SANATORIUMS

The department of "News of the Hospitals and Sanatoriums" is prepared each month just prior to going to press, for the purpose of presenting the latest authentic news regarding hospital construction, changes in personnel, and other matters in which the hospital field is interested. So far as we can ascertain, the sources of our information, while not guaranteed, are reliable.

General

Churches Establish Clinics.—Clinics for the treatment of various diseases have been established by St. Marks-in-the-Bouwerie, N. Y., the church founded by Peter Stuyvesant, and the Plymouth Congregational Church, Seattle. The former organization announced that physicians highly trained in medicine and psychiatry would conduct examinations of patients and offer such help as may be practicable. The plan constitutes, it is said, a complete cooperation between specialists in medicine and clergymen and was instituted only after many conferences. The pastor of the church in Seattle announced that the clinic would have no use for supernaturalism or faith cure, but would avail itself of the best scientific knowledge which this generation has to offer. Five reputable physicians of the city, it is said, will conduct the clinic.

New Superintendents.—The following superintendents have recently been appointed: John E. Swanger, Modern Woodmen of America Sanatorium, Woodman, Colorado; Dr. O. S. McGinnis, Parsons State Hospital, Parsons, Kansas; Charles F. Diehl, St. Johns Riverside Hospital, Yonkers, N. Y.; Mrs. Daisy Kingston, White Cross Hospital, Columbus, O.; Dr. James S. Hammers, Pitts City Home & Hospital, Mayview, Penna.; Col. R. S. Rawk, commanding officer in charge, U. S. Veterans' Hospital No. 36, Greenville, S. C.; William R. Hudson, Jr., Parkland Hospital, Dallas, Texas; Pauline M. Martignoni, American Hospital, Chicago, Ill.; Miss Helen B. McSherry, Union Hospital, Elkton, Maryland; Edith M. Redwine, Watts Hospital, West Durham, North Carolina; Ruth Woodring, Aultman Memorial Hospital, Canton, Ohio.

Alabama

Hospital Opens at Alexander City.—The new Russell hospital costing in the neighborhood of \$100,000, was recently formally opened. It is a sixty-five bed hospital.

New Fall City Hospital.—The new hospital at Fall City, erected by Dr. W. R. Snow, is nearing completion, according to a recent announcement. The cost will be \$25,000.

New Hospital for Woman's College.—Plans have been completed for the new two-story hospital building to be erected at the Woman's College of Alabama, Montgomery, as a part of the permanent equipment of that institution. The hospital will have a capacity of from twenty to

twenty-five beds and will cost approximately \$20,000.

Sanatorium Site Purchased.—A mountain section of 110 acres near Bald Ridge has been purchased as a site for the location of the new Jefferson Tuberculosis Sanatorium, according to the chairman of the committee which recently conducted a campaign for \$200,000 for the project. Construction of the building will be begun in sixty days, it is expected.

Arkansas

Addition to Paris Hospital.—Foundations are being laid for a new three-story building for Paris Hospital. The new building will have a capacity of twenty-eight beds.

Addition to Army and Navy Hospital.—The army and navy hospital, Hot Springs, with a present capacity of 130 beds, is planning a new addition. The exterior will be of brick construction with slate roofing. The interior will be of frame partitions, concrete and hardwood floors.

Ku Klux Klan Hospital.—Ground will be broken at El Dorado for the erection of a charity hospital to cost \$125,000 which will be constructed by the Knights of the Ku Klux Klan. The hospital will accommodate seventy-five patients.

State Tuberculosis Sanatorium.—Plans are being formed for the erection of a new building for the tuberculous children to be added to the State Tuberculosis Sanatorium, Booneville. The erection will be sponsored by the Masonic order. The new addition will contain fifty beds. The present capacity is 184 beds. All of the buildings are being erected by the state, and Harrellson and Newton, Ft. Smith, are the architects.

California

New Nurses' Home for French Hospital.—Contract has been awarded for the construction of a new nurses' home for the French Hospital, San Francisco, at an estimated cost of \$75,000.

To Be Dedicated Soon.—The first wing of the permanent building for Fabiola Hospital, Oakland, will be dedicated in October, it was recently announced. It will contain fifty beds and will cost \$250,000. Mrs. H. Spens Black has endowed one of the beds for \$10,000.

Superintendent of Charities Resigns.—Norman R. Martin, who for eight years was superintendent of the department of charities, County of Los Angeles, and superintendent of the hospital since June, 1917, has resigned to take the position of general manager of the Southern California Loan Association.

Seven New Cottages for State Hospitals.—The state board of control recently approved plans for the immediate construction of four new cottages at the state hospital at Pattoon, San Bernardino County, and three new cottages at the Norwalk State Hospital, Los Angeles County.